



गेल (इंडिया) लिमिटेड  
(भारत सरकार का उपक्रम.  
एक महारत्न कम्पनी)

**GAIL (India) Limited**  
(A Government of India Undertaking-  
A Maharatna Company)  
P.O.-Pata, Dist. Auraiya  
U.P.-206241, India

BID DOCUMENT NO: GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311] Dated 02.05.2013

## LIMITED DOMESTIC COMPETITIVE BIDDING (E-TENDER)

### BID DOCUMENT

### FOR

### UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA

BID DOCUMENT NO: GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]

### Volume 1 of 2 (Commercial)

PRE-BID MEETING : 21.05.2013at 1100 HRS

DUE DATE & TIME FOR ONLINE  
BID SUBMISSION (ONLY THROUGH E-TENDERING MODE) : 04.06.2013at 1500 HRS

DUE DATE & TIME FOR BID OPENING : 04.06.2013at 1630 HRS

Phone: +91 5683 282356, 282049, 283403-05, Extn - 30386  
Fax: +91 5683 282446, +91 11 26185941 1959#,

E-mail- [pp01959@gail.co.in](mailto:pp01959@gail.co.in)  
Website: [www.gailonline.com](http://www.gailonline.com)



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**GAIL (India) Limited**

(A Government of India Undertaking-  
A Maharatna Company)

**Invitation for Bid (IFB)**

Ref.: GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]

02.05.2013

**SUB: UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

Dear Sir,

GAIL (India) Limited invites bids from eligible bidders for Supply of subject items for its Petrochemical Plant, Pata **UNDER TWO BID SYSTEM** as per technical specification and other terms and conditions enclosed (refer Index/Content) with this document.

**1.0 Salient Features of Tender Document:**

- (i) Mode of Tendering : **E-Tendering** (e-Tendering through GAIL's Portal <https://etender.gail.co.in> , Please read 'Ready Reckoner')
- (ii) Bid download period : **02.05.2013 to 04.06.2013(1500 HRS IST)**  
(<http://gailtenders.in>/<https://etender.gail.co.in>)
- (iii) Bid Document Fee : **NOT APPLICABLE**  
(Wherever Tender fee is mentioned in this document, the same may be treated as not applicable)
- (iv) Earnest Money : **INR 3,00,000/-**
- (v) Delivery Schedule : Please refer Special Conditions of Contract (SCC)
- (vi) Date and Time for Pre-Bid conference : **1100 Hrs. (IST) on 21.05.2013**  
Venue : GAIL (India) Limited,  
(For Pre-bid conference) Pata, Dist. Auraiya (UP) India
- (vii) Last Date and Time for online Bid Submission (Upload) : **Up to 1500 Hrs. (IST) on 04.06.2013**
- (viii) Date and Time for Opening of Un-priced Bid (Techno-commercial) : **1630 Hrs. (IST) on 04.06.2013**
- (ix) **Bid Evaluation Criteria (BEC)** : Please see Annexure -1 to IFB
- (x) **Rejection Criteria** : Please see Sub Section 2 (General Instruction of Bidder) Clause no. 29

## **2.0 DOWNLOADING AND SUBMISSION OF BIDS:**

Bidder may download the Bid Document from GAIL's website <http://gailtenders.in> or <https://etender.gail.co.in> (as a guest user). The complete Bid consisting copy of Tender Fee, EMD, Technical Document (Part-I) and Price Bid (Part-II) etc. must be submitted only on our e-Tendering Portal (<https://etender.gail.co.in>). Bidders must digitally sign complete Bid Documents using a valid "Class-3 Digital Certificate". Bids submitted through Fax/e-mail or physical form by courier/post/in person shall not be accepted.

Bids complete in all respect should be uploaded on the GAIL's portal online on or before the BID DUE DATE AND TIME.

Corrigendum(s) and Record Notes of pre-bid discussions, if any, shall also be available on the referred web sites. It's bidder's responsibility to check above website regularly for such information.

- 3.0 Bidder must obtain Login ID and Password from GAIL, Digital Signature of class 3 and also required to carry out necessary security setting in their PC/Laptop before submission of tender. A detailed instruction of the same along with detailed step-by-step guideline of e-tendering process is available on website (<https://etender.gail.co.in>), namely 'Ready Reckoner' "Help Document" after login and FAQs, and same may be downloaded and read carefully before submission of tender.

## **4.0 EARNEST MONEY DEPOSIT (EMD)/BID BOND/BID SECURITY:**

The Earnest Money Deposit (EMD) for the amount as mentioned above shall be submitted in the form of Bank Guarantee or Bank Demand Draft or Banker's Cheque or Letter of Credit. The EMD if submitted in form of "crossed payee account only" bank Demand Draft/Banker's Cheque must be in favour of 'GAIL (India) Limited', payable at Pata (UP).

Validity of EMD (submitted in form of BG/LC) must be minimum 2 months beyond the validity of the offer.

## **5.0 DOCUMENTS AGAINST BEC:**

The bidder is required to read BEC [Refer Article 1(ix) above and Annexure -1 to IFB] carefully and ensures to furnish complete documentary evidences towards meeting BEC, as bid of only those bidders who meet BEC in totality based on submitted document(s) shall only be considered for further evaluation.

The PO/work executed by bidder for his own/subsidiary concern shall not be considered for the purpose of meeting the experience criteria of BEC.

## **6.0 SUBMISSION OF ORIGINAL CERTIFICATES/ DOCUMENTS:**

The following original document(s) (along with any other document(s) which are asked in tender document for submission in original) must reach us on due date and time of bid submission (or within 7 days from the final "due date for bid submission" in exceptional cases) as under, failing which bid may not be considered for further evaluation:

- (i) DD/BG towards EMD
- (ii) Original Power of Attorney (Refer Article 12 of ITB Annexure-I and 2.1 of Annexure-II of Section-II)

The above document(s) must be send in a sealed envelope super scribing as "Original EMD & Documents against Tender Reference No. GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311] so as to reach at following address:

Central Receipt Section (Not for Tender Box)  
Security Main Gate Building,  
Pata Complex,  
GAIL (India) Limited  
P.O. – Pata (Nearby Dibiyapur)  
District - Auraiya (U.P.), Pin – 206 241  
Phone - +91 5683 282356/283403-05

**Attn. Mr. Paul Philip**  
Sr. Manager (C&P)

Bidder must ensure that these documents must reach GAIL on or before 7th day from the final due date & time of bid opening (Part-1), failing which the bid will not be evaluated further irrespective of their status/ranking in tender and notwithstanding the fact that a copy of EMD was earlier uploaded by the bidder

**7.0 PRE-BID MEETING:**

- a) The Bidder(s) or his official representatives are invited to attend a pre-bid meeting on date, time and venue specified above.
- b) The bidder is requested to submit their queries /clarifications in the format **(F3)** through e-mail/fax/ courier so as to reach GAIL at least one week before the Pre-bid meeting. These questions shall be replied during the Pre-bid meeting.
- c) The salient queries raised, including the text of the questions raised (without identifying the sources of the query) and the responses given will be uploaded on GAIL's website and intimation to this effect shall be transmitted to all intended bidders.
- d) This being a e-Tender process, a Session will also be arranged for bidders to demonstrate the e-Tendering system to facilitate bidders to submit the Bid Online.
- e) Non-attendance of the pre-bid meeting will not be a cause for disqualification of a bidder.

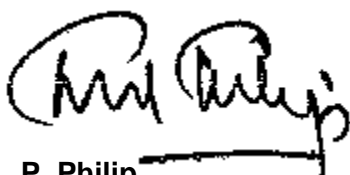
8.0 Bid Document is non-transferable. Bidder must buy the bid document in his own name and submit the bid directly i.e. bids received from bidders in whose name bid document has been purchased (bidder who submitted tender fee in e-tender) shall only be considered.

9.0 Immediately upon receipt of tender information, interested bidder must submit **F-1** "Acknowledgement Cum Consent Letter" duly filled-in & signed through e-mail/fax. In case of non participation in the tender, the bidder is required to submit the reason(s) for non-participation in the format **F-1** "Acknowledgement Cum Consent Letter" attached in the tender failing which GAIL may not issue any tender to such bidder in future.

GAIL reserves the right to accept or reject any or all offers without assigning any reason, whatsoever or to place order for part quantity at the sole discretion of GAIL.

Thanking You,

Yours faithfully,  
for GAIL (India) Limited



**P. Philip**  
Sr. manager (C&P)  
E-mail: [pp01959@gail.co.in](mailto:pp01959@gail.co.in)

Signature of Bidder:

❖ **NOTE**

1. Bidders are requested to go through the document named, "Section-II: Instructions to Bidders (ITB) for participation in E-Procurement" which has been made available in the Tender. This document shall over-ride and supersede any of the clause(s) found contradictory / conflicting elsewhere in the Tender Documents. This document aims at providing guidelines / instructions to bidders for submitting their bids through GAIL's "e- Tendering" system at <https://etender.gail.co.in>.
2. Bidders are advised, in their own interest, to ensure that their bids are submitted well before the "Due Date & Time of Bid-Submission" of the Tender as GAIL's "e-Tendering" system at <https://etender.gail.co.in> will not allow submission of bids once the closing date and time of the Tender [i.e. Due Date & Time of Bid-Submission] is reached.
3. Bidders are required to submit their bids along with a covering letter under the firm's / company's letterhead specifying the name and designation of the authorized person signing the bid, complete postal address of firm / company, telephone no., fax no., e-mail ID, etc.

**Annexure – 1 to IFB**

**BID EVALUATION CRITERIA (BEC)**

**Technical BEC**

**Technical BEC**

- 1.0 Bidder shall be (A) a manufacturer OR (B) An Authorized Representative of manufacturer of offered IP BASED EPABX SYSTEM.
- (A) In case the bidder is a manufacturer, a copy of manufacturing license or copy of company registration/ISO certification/NSIC/SSI/TEC certificate or any other authentic document establishing the bidder as the manufacturer of offered IP BASES EPABX SYSTEM needs to be submitted.
- (B) In case bidder is an authorized representative, copy of authorization certificate from the manufacturer of offered IP BASED EPABX SYSTEM valid as on the final date of submission and proof as per (A) above for the manufacturer who has authorized the bidder needs to be submitted.
- 2.0 Bidder must have successfully executed at least one single order for supply, installation & commissioning of IP Based EPABX system (s) for value not less than Rs.75 Lakhs during last seven years. And also the above order should consist of at least One IP Based EPABX system of value not less than Rs 15 lacs.

Documentary proofs in respect of above to be submitted along with the technical bid as per the following:

1. Copy (*ies*) of Purchase Orders / LOA.
2. Copy of Proof of Execution (Completion Certificate issued by Purchaser / End User or Inspection certificate issued by inspection agency / Purchaser / End User or Payment invoice along with proof of payment issued by Purchaser / End User containing purchase order reference).

**A job executed by a bidder for its own plant/project cannot be considered as experience for the purpose of meeting requirement of BEC of the tender. However, jobs executed for subsidiary/ fellow subsidiary/ holding company will be considered as experience for the purpose of meeting BEC subject to submission of tax paid invoice (s) duly certified by statutory auditor of the bidder) towards payment of statutory tax in support of the job executed for subsidiary/ fellow subsidiary/ holding company. Such bidders to submit these documents in addition to the documents specified in the bidding documents to meet BEC”**

**The cut-off date for meeting the Technical Criteria of BEC for of the tender shall be the final due date for submission of bids.**

### **Financial BEC**

- 1.0 The annual turnover of the bidder should be more than Rs.75.00 Lakh in any of the 03 (Three) preceding financial year i.e. 2011-12,2010-11,2009-10,
- 2.0 The “Net Worth” of the bidder should be Positive during last audited financial year i.e. FY - 2011-12
- 3.0 The bidder should have minimum working capital of Rs.15 Lacs as per last audited financial year i. e FY2011-12. If the bidder’s working capital is inadequate, the bidder should supplement this with a letter from the bidder’s bank, having net worth not less than Rs.100 Crore confirming the availability of line of credit for a sum of Rs.15 Lacs

The bidder must submit the copies of the audited balance sheets/printed copy of balance sheet, profit & loss account in supports of meeting the above financial criteria.

**All the documents submitted in support of above Bid Evaluation Criteria (Technical and Financial) must be certified by a statutory Auditor who audits Annual Accounts of the bidder or by a Chartered Accountant in case of audit of accounts is not mandatory as per Sec 44AB of Income Tax ,1961 . Necessary format for above certification has been given in tender document under Formats sections as F3, F3A, F3B, F3C etc.. The documents certified as above must be submitted along with the technical part of the bid. The bidder should meet the above BEC as on the bid due date of submission. Non-compliance to BEC may lead to rejection of bid.**

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**F-3**

**COVERING LETTER ON LETTER HEAD BY THE STATUTORY AUDITOR/  
CHARTERED ACCOUNTANT OF THE BIDDER**

**To,**

**Date:**

**Sub: Certificate Regarding.....**

Dear Sir,

We ..... (Name of Statutory Auditor/ Chartered Accountant) are the Statutory Auditor/ Chartered Accountant of M/s ..... (Name of Bidder)

We hereby confirm that we have issued following certificate:

- 1.
- 2.
- 3.

Thanking You,

Place:  
Date:

(Signature)  
Name of Authorized Signatory  
Membership No:

Encl.: As above

Note:

Bidders whose accounts are not audited by auditors as per Law/Jurisdiction, certification from a Chartered Accountant to be submitted.

Signature of Bidder:



**F-3A (Page 1 of 2)**

**BID DOCUMENT NO. GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**

**Bidder's name:**

**Date:**

**FORMAT FOR CERTIFICATE FROM CHARTERED ACCOUNTANT FOR  
DETAILS OF SIMILAR SUPPLY OF GOODS/WORKS/ SERVICES IN PAST SEVEN  
YEARS**

**(Applicable for cases where bidder's account are not audited by  
Statutory Auditor as per Law / Jurisdiction)**

Name of the Work	
Name, address and contact details of client	
P.O /W.O No.	
Scope of work of Bidder	
Date of commencement of the project/work	
Date of completion of the project/work	
Total executed value from the project/work (Specify currency and amount)	

- (i) Copies of Letter of awards/ Order/ Work Orders and completion certificate (in case of works/ services) or IRN/Proof of delivery (in case of supplies, if applicable) to be enclosed.
- (ii) The Supply/Work/Services completed earlier than \_\_\_\_ years need not be indicated here.
- (iii) The list of Supply/Work/Services, not of similar nature need not be indicated here. Failing to comply aforementioned instructions may lead to rejection of bid.

Place:

[Signature of Authorized Signatory of Bidder]

Date:

Name:

Designation:

Seal:

Signature of Bidder:

**F-3A (Page 2 of 2)**

**FORMAT FOR CERTIFICATION BY CHARTERED ACCOUNTANT**

**Certificate from the Chartered Accountant regarding  
Supply of Good/ Works/ Services**

Based on its books of accounts and other published information authenticated by it, {this is to certify that LOA/ PO/ WO No..... dated ..... was awarded to ..... (*Name of the Bidder*) by ..... (*Name of Client*) to execute ..... (*Name of Supply/Work/ Service*). The Supply/Works/Services commenced on ..... (*Date*) and was/ is likely to be completed on ..... (*Date, if any*). It is certified that the total value of contract/order executed by ..... (*name of bidder*) was .....(*Specify Currency and amount*) and executed value was.....(*Specify Currency and amount*).

Name of Audit Firm/  
Chartered Accountant  
Date:

[Signature of Authorized Signatory]

Name:  
Designation:  
Seal:  
Membership no.

Signature of Bidder:

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

**Annexure- 4 to IFB**

**F-3B (Page 1 of 2)**

**BID DOCUMENT NO. GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**

**Bidder's name:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**FORMAT FOR CERTIFICATE FROM STATUTORY AUDITOR FOR DETAILS OF SIMILAR GOODS/  
WORK/SERVICES SUPPLIED/ DONE DURING PAST SEVEN YEARS**  
**(Applicable in all cases where bidder's accounts are audited by Statutory Auditor)**

Sl. No	Description of the Goods/works/ Services	LOA/PO/W O No. and date	Full Postal Address & phone nos. of Client. <i>Name, designation and address of Engineer/ Officer-in-Charge (for cases other than purchase)</i>	Value of Contract/ Order (Specify Currency Amount)	Date of Commence-ment of Work/ Services or supply of goods	Scheduled Completion Time (Months)/ Delivery Schedule	Date of Actual Completion/ Supply	Reasons for delay in execution, if any
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
Pl refer instruction								

Place:

Date:

[Signature of Authorized Signatory of Bidder]

Name:

Designation:

Seal:

**Instructions:**

1. Copies of Letter of awards/ Order/ Work Orders and completion certificate (in case of works/ services) or IRN/Proof of delivery (in case of supplies, if applicable) to be enclosed.
2. The Supply/Work/Services completed earlier than seven years need not be indicated here.
3. The list of Supply/Work/Services, not of similar nature need not be indicated here. Failing to comply aforementioned instructions may lead to rejection of bid.

Signature of Bidder:

**F-3B (Page 2 of 2)**

4. Bidders are expected to provide details in respect of each Order in this Annex. The orders cited must comply with the Bid Evaluation criteria specified in Tender Document. Details provided in this section are intended to serve as a backup for information provided in Offer/ Quotation. Bidder should also refer to the Instructions below.
5. A separate sheet should be filled for each LOA/Work Order/ Purchase Order.
6. Certificate from the Bidder's statutory auditors must be furnished in the format below for LOA/Work Order/ Purchase Order mentioned above (separately for each orders).
7. It may be noted that in the absence above certificates, the details would be considered inadequate and could lead to the bid being considered ineligible for further evaluation.

**Certificate from the Statutory Auditor regarding Supply of Good/ Works/ Services**

Based on its books of accounts and other published information authenticated by it, {this is to certify that LOA/ PO/ WO No..... dated ..... was awarded to ..... (Name of the Bidder) by ..... (Name of Client) to execute ..... (Name of Supply/Work/ Service). The Supply/works/services commenced on ..... (Date) and was/ is likely to be completed on ..... (Date, if any). It is certified that the total value of contract/order executed by ..... (Name of bidder) was..... (Specify Currency and amount) and executed value was..... (Specify Currency and amount).

Name of Audit Firm/  
Chartered Accountant  
Date:

[Signature of Authorized Signatory]

Name:  
Designation:  
Seal:  
Membership no.

Signature of Bidder:

**F-3C**  
**FORMAT FOR STATUTORY AUDITOR'S/ CHARTERED ACCOUNTANT\* CERTIFICATE FOR**  
**FINANCIAL CAPABILITY OF THE BIDDER**  
**(For Supply of Goods/ Works/ Services)**

**Bidder's name:**

**Date:**

We have verified the Annual Accounts and other relevant records of M/s..... (Name of the bidder) and certify the following

**A. ANNUAL TURNOVER OF LAST 3 YEARS:**

Year	Amount (Currency)
Year 1:	
Year 2:	
Year 3:	

**B. FINANCIAL DATA FOR LAST AUDITED FINANCIAL YEAR :**

Description	Year ____
	Amount (Currency)
1. Current Assets	
2. Current Liabilities	
3. Working Capital (Current Assets- Current liabilities)	
4. Net Worth (Paid up share capital and Free Reserves & Surplus)	

**Instructions:**

1. The financial year would be the same as one normally followed by the bidder for its Annual Report.
2. The bidder shall provide the audited annual financial statements as required for this Tender document. Failure to do so would result in the Proposal being considered as non responsive.
3. For the purpose of this Tender document, (i) Annual Turnover shall be "Sale value/ Operating Income" (ii) Working Capital shall be "Current Assets less Current liabilities" and (iii) Net Worth shall be "Paid up share capital and Free Reserves & Surplus"
4. \* Bidder whose accounts are not audited by auditors as per law/jurisdiction, certification from a Chartered Accountant to be submitted.
5. All such documents reflect the financial situation of the bidder and not sister or parent companies.
6. Historic financial statements must be complete, including all notes to the financial statements.
7. Historic financial statements must correspond to accounting periods already completed and audited (no statement for partial periods shall be requested or accepted).

Name of Audit Firm:  
Chartered Accountant  
Date:

[Signature of Authorized Signatory]  
Name:  
Designation:  
Seal:  
Membership no.

Signature of Bidder:



**गेल (इंडिया) लिमिटेड**

(भारत सरकार का उपक्रम)

(एक महारत्न कंपनी)

**GAIL (India) Limited**

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**VOLUME 1 of 2 (Commercial)**

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<b>Section II</b>	<b>General Conditions of Contract-Goods (GCC-Goods)</b>
<b>Section III</b>	<b>Special Conditions of Contract (Commercial)</b>
<b>Section IV</b>	<b>Packing and Shipping Instructions</b>
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# SECTION -I

## INSTRUCTIONS TO BIDDERS

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**Sub Section -1**      **Instructions to Bidders (ITB) for participation in E-Procurement**

**Sub Section - 2**      **General Instructions to Bidders (ITB)**

#### Table of Clauses

- A. Introduction
- B. Bidding Documents
- C. Preparation of Bids
- D. Submission of Bids
- E. Bid Opening and Evaluation
- F. Award of Contract

**Instructions to Bidders(ITB) for participation in E-Procurement**

GAIL (India) Ltd., has developed a secured and user friendly system which will enable Vendors/Bidders to Search, View, Download tenders directly from GAIL (India) Ltd. secured website and also enables them to participate and submit Online Bids/Offer in the E-Procurement site directly from the website in secured and transparent manner maintaining confidentiality and security throughout the tender evaluation process and award.

Bidders are requested to read following conditions in conjunction with various conditions, wherever applicable appearing with this bid invitation for e-Procurement. The conditions mentioned here in under shall supersede and shall prevail over the conditions enumerated elsewhere in the tender document.

**1) How to submit On-line Bids/Offer electronically against E-Procurement tenders?**

Vendor/Bidder who wish to participate for E-tenders which are uploaded on GAIL (India) Ltd. Website <https://etender.gail.co.in> should follow the following steps which shall permit them to Search, Display/View, Download and Submit their **electronic Bids/Offer** online in a secured manner ensuring confidentiality.

**Vendors/Bidders are advised to read the following instructions for participating in the electronic tenders directly through Internet:**

- i) No Late and delayed Bids/Offer after due date/time shall be permitted in E-procurement system. Time (IST) being displayed on our e-Tendering System shall be final & binding on bidder and bids have to be submitted by bidder(s) considering this time only and not the time as per their location/ country.** No bid can be submitted after the last date and time of submission has reached, however if bidder intends to change the bid already entered may change/revise the same on or before the last date and time of submission deadline .The system time (IST) that will be displayed on e-Procurement webpage shall be the time for bidding purpose and no other time shall be taken into cognizance.
- ii) Bidders are advised in their own interest to ensure that bids are uploaded in e-Procurement system well before the closing date and time of bid.**
- iii) No bid can be modified after the dead line for submission of bids.**
- iv) No Manual Bids/Offer shall be permitted. The offers submitted through e-tendering system shall only be considered for evaluation.**

**2) HOW TO SEARCH, VIEW AND DOWNLOAD E-TENDER?**

Vendors/Bidders must go to e-tender website <https://etender.gail.co.in> and logon using their user-id and password. In the case of vendors not possessing the User Id and Password, they can access through Guest Login as guest. This facilitates viewing of tenders in display mode in Collaboration folder (C Folder). If the vendor desires to download the NIT and attached e-tender at this stage, he may download the same for viewing free of cost.

Note: All e-tender notices and tender documents are available only in soft copies such as Microsoft Word, Excel, PDF files. For downloading / viewing PDF files use **Adobe 6 Software utility** which can be installed free of cost from Vendors home page link by any vendor onto his own computer.

**3) PARTICIPATION IN BID, REQUEST FOR USER ID and PASSWORD:**



To participate in Bid submission, it is Mandatory on the part of Vendor(s) to have User ID and Password. To obtain User ID and Password Vendor/Bidder must open <https://etender.gail.co.in> site and perform the following steps:

- i) Click on button Request User ID (For new Bidders)
- ii) Fill the on line form and submit. Ensure that the email address given in the form is valid and active. If you have already been provided with the Vendor Code of GAIL, please mention the 10 digit Vendor code in specified field, otherwise leave blank.
- iii) Ensure that all the mandatory fields (identified with a star mark) are filled in application form for User ID creation.

E-Procurement administrator would take possible care to allot an User id and Password within 4 working days. An Email (system generated) shall be sent to your email – Id (mentioned by you in the Registration form) giving details of your User- ID and password. On Receipt of User Id, Please reset the password immediately by logging to our E-tendering site.

User Id and passwords are unique to each vendor and the vendor can use the same to view/download/participate in all e-tenders of GAIL.

**Note:** Without login registration ID, vendor cannot participate in e-tender. There will be single login ID permission for one single vendor. There can be more than one ID for the same vendor at different location address.

Obtaining User ID is an on-going process and is not linked to any particular Bid Invitation (tender). Any vendor willing to participate in GAIL tenders can obtain User ID as described above. Each vendor will get one user ID. Vendors are requested to designate one officer from their organization who will submit bids on line.

Vendors are advised to apply for user id at least 7 days prior to the last date of bid submission in their own interests. User ids shall be given within 4 days subject to condition that information furnished by the bidder is complete in all respects. GAIL shall not be responsible for any delays in allocation of user id/password and the ensuing consequences including but not limited to timely submission of bids.

#### **4) WHAT IS A DIGITAL SIGNATURE?**

This is a unique digital code which can be transmitted electronically and primarily identifies a unique sender. The objective of digital signature is to guarantee that the individual sending the message is who he or she really claims to be just like the written signature. The Controller of Certifying Authorities of India (CCA) has authorized certain trusted Certifying Authorities (CA) who in turn allot on a regular basis Digital Certificates. Documents which are signed digitally are legally valid documents as per the Indian IT Act (2000).

#### **5) WHY IS A DIGITAL SIGNATURE REQUIRED?**

In order to bid for GAIL e-tenders all the vendors are required to obtain a legally valid Digital Certificate as per Indian IT Act from the licensed Certifying Authorities (CA) operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.

#### **6) HOW TO OBTAIN DIGITAL CERTIFICATE FROM CERTIFYING AUTHORITY (CA)?**

Vendors/Bidders cannot submit online Bids/Offer under e-tenders without obtaining valid Digital Certificate from Certifying Agency (C.A). A hyperlink on Vendor/Bidder home page gives link to Controller of Certifying Agency's (C.C.A.) website from there the bidder can access web sites of various CA sites, using the links provided. One Digital Certificate is valid for specified period and can be used for signing any number of quotations against enquiries issued by GAIL during such validity period.

**Note:** In terms of I.T Act 2000, only a digitally signed document will be considered as valid signed document.

The Digital Certificate is issued by C. A. in the name of a person authorized for filing Bids/Offer on behalf of his Company. The certificate is installed / stored in his computer or preferably received by him (his authorized person) in form as **USB token**. A Vendor/Bidder can submit their Bids/Offer On-line only after digitally signing the bid/documents with the above allotted Digital Signatures.

**7) STEPS FOR OBTAINING DIGITAL CERTIFICATE:**

Digital Certificate can be obtained by the following steps:

- i) Visit the site of the licensed CA\* using internet browser.
- ii) Apply for a class 3 Digital Certificate for the designated individual with the name of Organization. Ensure the Digital Certificate is legally valid in India.
- iii) For making payment and submission of documents required for issue of the Digital Certificate, follow the instructions on the CA's website.
- iv) Use the class 3 Digital Certificate thus obtained for online bidding on GAIL e-Procurement site.

**\*Links to some licensed CA's are provided below**

1. <http://www.ncodesolutions.com>
2. <http://www.safescrypt.com/>
3. <http://www.tcs-ca.tcs.co.in/>
4. <http://www.mtnltrustline.com/>

**8) PRE-BID CONFERENCE:**

Subsequent to opening of bids, GAIL may not seek clarifications. Therefore, clarifications, if any, are to be sought by the bidders during the pre-bid conference (if applicable)/ 10 days before final date of closing of Tender.

During the pre-bid conference, GAIL may also arrange demonstration of the e-Procurement portal to the interested vendors.

**9) TENDER FEE/BID DOCUMENT FEE:**

Bidders are required to submit the DD (tender fee, if applicable) along with EMD in physical form. The bidder who has already submitted tender fee or accompanied with DD during meeting, will only be allowed to attend pre-bid meeting.

**10) EARNEST MONEY DEPOSIT**

Bidders are required to submit the EMD in original in the prescribed formats and in the manner prescribed in the tender at the time of bid submission in sealed envelope.

However, if the bidder is unable to submit EMD in original on the due date, he may upload a scanned copy of the EMD while submitting the bid electronically, provided the original EMD, copy of which has been uploaded, is received within 7 days from the date of un priced bid opening, failing which the bid will be rejected irrespective of their status/ ranking in tender and notwithstanding the fact that a copy of EMD was earlier uploaded by the bidder.

**11) SUBMISSION OF DOCUMENTS:**

Bidders are required to upload all Tender forms and supporting documents which form part of the bid/tender in the e-Procurement (Collaboration/C-Folders) site only. However, documents specified to be submitted physically viz. Bid document fee (tender fee) & EMD, etc, need to be

submitted in a sealed envelope in accordance with the method described in RFQ. The same should reach **GAIL (India) Limited, Attn: Deputy General Manager (C&P), P.O. Pata, District: Auraiya, PIN- 206244, Uttar Pradesh, India**. Bidder shall ensure that all the documents relevant to bid are uploaded in time and failure to upload the same before bid submission date is the sole responsibility of bidder. Under no circumstances, GAIL shall entertain any request for acceptance of bid documents in physical form, which were required to be uploaded in e-form.

**Note:**

1. Bidder is required to save/store their bid documents for each item into their PC/computers before submitting their bid into e-tendering system by pressing the Hold Button.
2. Bidder is required to fill up the price/rate strictly in the Price Schedule/Schedule of Rate (SOR) format appearing/attached with the tender.

Inadvertently, if a incorrect/wrong document(s) is uploaded in Collaboration Folder (C Folder) by the bidders, such document can be deleted by the Bidder and in it's place a new/modified document can be uploaded. The new/modified document will be required to be signed digitally. Where two similar documents are existing in the folder, the latest version of the document shall only be taken into cognizance for evaluation and earlier versions shall be ignored.

Bidders are requested to upload small sized documents preferably **(up to 2 MB)** at a time to facilitate easy uploading into e-Procurement site. GAIL does not take any responsibility in case of failure of the bidder to upload the documents within specified time of tender submission.

**12) PRICES, OTHER DOCUMENTS AND DIGITAL SIGNATURE:**

The Prices are to be submitted online strictly as per the Schedule of Rates (SOR). GAIL shall not be responsible for any failure on the part of the bidder to follow the instructions.

Un-priced techno-commercial bid document should be placed in the private area earmarked in the C-folder.

Before the bid is uploaded, the bid comprising of all attached documents should be digitally signed using digital signatures issued by an acceptable Certifying Authority (CA) in accordance with the Indian IT Act 2000. If any modifications are required to be made to a document after attaching digital signatures, the digital signature shall again be attached to the modified documents before uploading the same.

The Authenticity of above digital signatures shall be verified through authorized CA after bid opening and in case the digital signature is not authorized / valid, the bid will be rejected. Bidder shall be responsible for ensuring the validity of digital signatures and proper usage of the same by responsible persons who can bind the bidder. Scanned copy of Power of Attorney of the signatory issued by the bidding company should be submitted on line along with other documents as per tender conditions.

**BIDDERS SHALL OBTAIN THE DIGITAL CERTIFICATE DIRECTLY FROM CERTIFYING AUTHORITY (CA) ONLY AND DIGITAL CERTIFICATE ISSUED BY SUB CA / AGENT WILL NOT BE COMPATATIBLE WITH OUR e-TENDERING SYSTEM.**

**\*Links to some licensed CA's in India are provided below. Foreign Bidders may obtain the Digital certificate from these CAs.**

1. <http://www.ncodesolutions.com>
2. <http://www.safescrypt.com>
3. <http://www.tcs-ca.tcs.co.in>
4. <http://www.mtnltrustline.com>

Signature of Bidder:

13) **PRICES:**

The bidder needs to enter the prices on line strictly as per the SOR format provided in our E-Tender. No new conditions/bidder's own Price Schedule Format etc. shall be added by the bidder, as same will not be considered for evaluation.

14) **SUBMISSION AND OPENING OF BIDS:**

The bid along with all the copies of documents should be submitted in e-form only through GAIL e-Procurement portal. No hard copy of bid/any document against this tender in physical form, is acceptable.

15) **LAST DATE FOR SUBMISSION OF BIDS:**

System does not allow for submission of bids beyond the deadline for bid submission. However, if the bidder for some reason intends to change the bid already entered, he may change/revise the same on or before the last date and time of submission. The system time displayed on GAIL's e-Procurement webpage shall be final and binding on the bidders for all purposes pertaining to various events of the subject tender and no other time shall be taken into cognizance.

Bidders are advised in their own interest to ensure that bids are uploaded in e-Procurement system well before the closing date and time of bid.

Bidders must use any computer having **Windows 2000 or Windows XP** versions or higher of Window operating system and an internet Web Browser version Internet explorer V6.0 or higher recommended.

16) **Proxy:**

If any bidder is unable to access GAIL's e-Procurement site or Bid Documents, the bidder may please check whether they are using proxy to connect to internet or their PC is behind any firewall and may contact their system administrator to enable connectivity. Please note that Port 443 and Port 8443 should be enabled on proxy/firewall for HTTPS connectivity. Dial-up internet connectivity without Proxy settings is another option.

## **Sub Section - 2**

### **GENERAL INSTRUCTIONS TO BIDDERS**

#### **A. INTRODUCTION**

##### **1.0 Scope of Bid:**

- 1.1 The Purchaser as defined in the General Conditions of Contract-Goods, hereinafter "the Purchaser" wishes to receive bids for the supply of goods as described in Volume –II/II (Technical Specifications and Scope of Supply).
- 1.2 The successful bidder will be expected to complete the Scope of supply within the delivery period stated in Special Conditions of Contract.
- 1.3 Throughout these bidding documents, the terms "bid" and "tender" and their derivatives ("bidder/ tenderer", "bid/tender/offer", "bidding / tendering", etc.) are synonymous, and day means calendar day. Singular also means plural.

##### **2.0 Eligible Bidders:**

- 2.1 Bidders shall, as part of their bid, submit a written **power of attorney** authorizing the signatory of the bid to bind the bidder.
- 2.2 This Invitation for Bids is open to any bidder.
- 2.3 Bidders should not be associated or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the Purchaser to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.
- 2.4 The bid should be from actual manufacturers. The bids from sole selling agents / authorized distributors/ authorized dealers/ authorized supply houses can also be considered, provided such bids are accompanied with back-up authority letter from the concerned manufacturers who authorize them to market their product, provided further such an authority letter is valid at the time of bidding. Offers without back-up authority from manufacturer will not be considered. Required warranty cover of the manufacturers for the product will be provided by such supplier.
- 2.5 The bidder shall not be under a declaration of ineligibility by Purchaser for corrupt or fraudulent practices as defined in ITB.
- 2.6 While evaluating the bids, pursuant to Bid Evaluation Criteria as specified in the Global notice of IFB, bidders past performance shall also be assessed for ascertaining the responsiveness of the bid. In such a case, the decision of Purchaser shall be final and binding on the bidder.
- 2.7 The bidder is not put on holiday by GAIL or black listed by any Government Department/ Public Sector including GAIL.

##### **3.0 One Bid per Bidder:**

- 3.1 A bidder who submits or participates in more than one bid will cause all the proposals in which the bidder has participated to be disqualified.

##### **4.0 Bid Evaluation Criteria:**

- 4.1 The Bid Evaluation Criteria (BEC) is as per **Annexure1 to IFB**. The bids of only those bidders shall be considered for further evaluation and award who is meeting BEC in totality and have submitted sufficient documentary evident in support of meeting BEC.

**5.0 Cost of Bidding:**

- 5.1 The bidder shall bear all costs associated with the preparation and submission of the bid, and PURCHASER (GAIL), will in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

**6.0 SITE VISIT**

- 6.1 The bidder is advised to visit and examine the site or / locations and its surroundings and obtain for itself, at its own responsibility, all the information that may be necessary for preparing the bid and entering into the Contract. The cost of visiting the site shall be at the bidder's own expense.
- 6.2 The bidder or any of its personnel or agents will be granted permission by the GAIL to enter upon its premises and land for the purpose of such visits, but only upon the express condition that the bidder, its personnel, and agents will indemnify the GAIL and its personnel and agents from and against all liabilities in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

**B. BIDDING DOCUMENTS**

**7.0 Content of Bidding Documents:**

- 7.1 The bidding documents are those stated below and should be read in conjunction with any addenda issued in accordance with ITB Clause

**VOLUME 1 of 2 (Commercial)**

- Section I. Instructions to Bidders (ITB) for participation in E-Procurement  
(Sub section 1)  
General Instructions to Bidders (ITB) (Sub section 2)
- Section II General Conditions of Contract-Goods (GCC-Goods)
- Section III Special Conditions of Contract
- Section IV Packing and Shipping Instruction
- Section V Forms and Formats
- Section VI Price Schedule

**VOLUME 2 of 2 (Technical Specifications & Scope of supply)**

- 7.2 The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. The Invitation for Bids (IFB) together with all its attachments thereto, shall be considered to be read, understood and accepted by the bidders. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.

**8.0 Clarification of Bidding Documents:**

- 8.1 A prospective bidder requiring any clarification of the Bidding Documents may notify GAIL in writing or by fax or e-mail at GAIL's mailing address indicated in the Invitation for Bids. GAIL will respond in writing to any request for clarification of the Bidding documents which it receives not later than date of **Pre-Bid meeting/10 days prior to the deadline (in exceptional case)** for the submission of bids prescribed by GAIL. Written copies of GAIL's response (including an explanation of the query but without identifying the source of the query) will be sent to all prospective bidders who have received the bidding documents. Any Clarification or information required by the bidder but same not received by the Purchaser, ten days prior to the bid due date, the same is liable to be considered as no clarification/information required.

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

*[All questions/queries should be referred to GAIL on or before scheduled date of pre-bid conference or 10 days before bid closing date. The questions/queries received by GAIL prior to pre-bid conference will be addressed in the pre-bid conference & **no separate communication will be sent to bidders.**]*

**9.0 Amendment of Bidding Documents:**

- 9.1 At any time prior to the bid due date, the PURCHASER may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents, by issuing addenda/corrigenda.
- 9.2 Any addendum/corrigendum thus issued shall be part of the Bidding Documents pursuant to ITB Clause-7.1 and shall be notified in writing by fax/post to all prospective bidders who have received the bidding documents. Prospective bidders shall promptly acknowledge receipt of each addendum by fax/post to the Purchaser.
- 9.3 The PURCHASER may, at its discretion, extend the bid due date in order to allow prospective bidders, a reasonable time to furnish their most competitive bid taking into account the amendments issued.

**C. PREPARATION OF BIDS**

**10.0 Language of Bid:**

- 10.1 The bid prepared by the bidder as well as all correspondence /drawings and documents relating to the bid exchanged by bidder and the PURCHASER shall be written in English language, provided that any printed literature furnished by the bidder may be written in another language so long as accompanied by an ENGLISH translation, in which case, for the purpose of interpretation of the bid, the ENGLISH translation shall govern.
- 10.2 In the event of submission of any document/certificate by the Bidder in a language other than English, the English translation of the same duly authenticated by Chamber of Commerce of Bidder's country shall be submitted by the Bidder. Metric measurement system shall be applied.

**11.0 Documents Comprising the Bids:**

Bid must be submitted online thru' GAIL's "e-Tendering" system at <https://etender.gail.co.in>. Bidder shall submit both "Un-Priced Bid" and "Price Bid" through GAIL's "e-Tendering" portal only. Bids submitted in any other form, such as hard copy through courier /post / in-person / fax / telegram / telex/e-mail etc. shall not be accepted against this Tender.

**Please read "Rejection criteria" and all other document of tender before submitting bid.**

The "Un-Priced Bid" and "Price Bid" shall contain the documents in the manner specified below:

❖ **PART-I: UN-PRICED (TECHNO-COMMERCIAL BID):**

The "Un-Priced Bid" must be complete with the following:

- (A) 'Covering Letter' on Bidder's 'Letter head'
- (B) Copy of DD for Tender Fee
- (C) Copy of Original EMD / Bid Security
- (D) Copy of Power of Attorney
- (E) Documents against BEC
- (F) An undertaking on letter head that content of tender document has not been modified / altered, as per format given in IFB.
- (G) Blank Price Schedule (i.e. price schedule format without the prices/rates but mentioning

Signature of Bidder:

- “QUOTE/NOT QUOTED”) towards proof of submission of prices as per price schedule in “Price Bid (Part-II)” submitted separately
- (H) Format of AGREED TERMS & CONDITIONS (F 14) duly filled-in
  - (I) Scanned copy of Integrity Pact (on plain paper) duly signed & stamped manually as well as digitally exactly in Format F15
  - (J) All other Forms & Format of Section V (including F2, F4, F5, F6, F7, F8, F-11 etc.) duly filled in
  - (K) Complete Tender Document (i.e. Volume 1 of 2 and Volume 2 of 2) duly signed digitally
  - (L) All technical and commercial details other than the rate/price, bidder willing to submit
  - (M) Any other information/details required as per bidding document including addendum /corrigendum to this bidding document, if issued.

All the documents should be 'digitally signed' through a valid "**Class-3 Digital Certificate**" to be obtained from certifying agencies as detailed in the Instruction for participation in e-tendering.

All above documents must be uploaded in collaboration folder, on GAIL's portal.

❖ **PART-II: PRICE BID [PRICE SCHEDULE]**

Priced Bid shall contain only prices mentioned in all Field/Box **strictly** in the “Price Schedule” format Section- VI of tender duly signed digitally.

No stipulation, deviation, terms & conditions, presumption, basis or any documents etc. shall be stipulated / submitted in Priced bid. GAIL shall not take cognizance of any such statement and may at their discretion reject such price bids.

**Bidders are advised NOT to mention Rebate/Discount separately, either in the Price Schedule format or anywhere else in the offer. In case bidder(s) intend to offer any Rebate/Discount, they should include the same in the item rate(s) itself under the “Price Schedule” and indicate the discounted unit rate(s) only.**

In case, it is observed that any of the bidder(s) has/have mentioned Discount/Rebate separately, the same shall not be considered for evaluation. However, in the event of the bidder emerging as the lowest bidder, the Discount/Rebate offered by the bidder shall be considered for placement of order and the same will be conclusive and binding on the bidder.

*Please ensure that no Rate/Price or price related information is mentioned in Part-I Un Priced Bid OR Part-III (collaboration folder of e-tender portal), as such bids shall be out-right rejected as per rejection Criteria of Tender Document.*

❖ **PART-III: EARNEST MONEY DEPOSITE [EMD]**

This section only contains copy of EMD and no other document(s)/conditions.

All above documents must be uploaded on appropriate place for Techno-Commercial, EMD (in Collaboration Folder) and Price Bid, on GAIL's portal.

GAIL (India) Limited assumes no responsibility for inability of a bidder to submit bids through GAIL's "e-Tendering" system on account of delay in submission at bidder's end. Bidder shall ensure that they submit the bid well before the "Due Date & Time of Bid-Submission". GAIL shall not be responsible if bidder is not able to submit the bid on account of failure in network / internet connection at bidder's end. Bidder shall obtain a "Digital Certificate [Class-3]" on their own and GAIL (India) Limited will be not at all responsible for a bidder not having acquired the valid "Class-3 Digital Certificate". Bidder may refer to addendum to "Instructions to Bidders [ITB]" for getting a valid "Class-3 Digital Certificate".

**12.0 Bid Form & Price Schedule:**



12.1 The bidders shall complete the Bid Form and appropriate Price schedule furnished in the Section IV of Bidding Document, indicating the required information for all the goods to be supplied, a brief description of the goods, their country of origin and quantity.

**13.0 Bid Prices:**

13.1 The bidder shall indicate on the appropriate format for "Price Schedule" enclosed as part of Bidding Document. If quoted in separate typed sheets and any variation in item description, unit or quantity is noticed, the bid is liable to be rejected.

13.2 Bidders shall indicate the following separately (as per Price Schedule, Annexure-IV)

- A) Ex-works Price including packing and forwarding charges (such price to include all costs as well as duties and taxes paid or payable on components and raw materials incorporated or to be incorporated in the goods).
- B) Excise Duty & Sales Tax (rates) which will be payable on the finished goods, if this contract is awarded.
- C) The bidders shall indicate breakup of the quantum of imports involved for import of necessary raw materials and components giving CIF value of Import in applicable currency considered and included in bid price. Purchaser will not issue/provide any Essentiality certificate for imports.
- D) **The statutory variation in Excise Duty & Sales Tax on finished goods covered under Cl. 12.2(B) within the contractual delivery period (except due to increase in turnover) shall be to GAIL's account.** However, any increase in the rate of these taxes and duties beyond the contractual completion period shall be to bidder's account and any decrease shall be passed on to GAIL. Further, any statutory variation in the rate of customs duty within contractual delivery period, on the actual CIF value of import content, but subject to maximum of such duty payable on quoted CIF value, under Cl. 12.2 (A) shall also be to GAIL's account. In case of delay in delivery, any increase in the rate of customs duty beyond the contractual completion period shall be to bidder's account and any decrease shall be passed on to GAIL.

**NOTE:** *Inland transportation, other local costs incidental to delivery of the goods to its final destination (FOT-site) shall be quoted by the Bidder. However, transit Insurance shall be arranged by Purchaser.*

13.3 **Fixed Price:** Prices quoted by the bidder shall be firm and fixed during the bidder's performance of the contract and not subject to variation on any account except for variations permitted under 12.2(D) for domestic bidders. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

13.4 The delivery terms shall be interpreted as per INCOTERMS 2000.

**14.0 Bid Currencies:**

14.1 Domestic bidders may submit bid in any currency (including Indian Rupees) and receive payment in such currency at par with foreign bidder.

**15.0 Documents Establishing Bidder's Eligibility and Qualification:**

**15.1 Bid Evaluation Criteria (As per IFB )**

15.1.1 Pursuant to evaluation Criteria specified in Invitation for Bids (IFB) the bidder shall furnish all necessary supporting documentary evidence to establish the bidder's claim of meeting Bid evaluation criteria.

**15.2 Bidders Eligibility Criteria**

15.2.1 The bidder shall furnish, as part of his bid, documents establishing the bidder's eligibility to bid and its qualification to perform the contract if its bid is accepted.

15.2.2 The documentary evidence of the bidder's qualifications to perform the contract if his bid is accepted, shall establish to the PURCHASER'S satisfaction:

- a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in the Purchaser's country;
- b) that the Bidder has the financial, technical and production capacity necessary to perform the contract;
- c) that, in case of a Bidder not doing business within the Purchaser's country, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped and able to carry out the Supplier's maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications.

15.2.3 The PURCHASER will determine to its satisfaction whether the bidder selected as having submitted the lowest evaluated, responsive bid is qualified to satisfactorily perform the contract. An affirmative determination will be pre-requisite for award of the Contract.

15.3 Bidder is required to furnish the complete and correct information / documents required for evaluation of their bids. If the information / documents forming basis of evaluation is found to be false / forged, the same shall be considered adequate ground for rejection of the bids and forfeiture of Earnest Money deposit.

In case the information / document furnished by the vendor / contractor forming the basis of evaluation of his bid is found to be false / forge after award of the contract, GAIL shall have full right to terminate the contract and get the remaining job executed at the risk & cost of such vendor /contractor without any prejudice to the rights available to GAIL under the contract such as forfeiture of CPBG/security Deposit, withholding of payment etc.

In case this issue of submission of false document comes to the notice after execution of work, GAIL shall have full right to forfeit any amount due to the Vendor/Contractor along with forfeiture of CPBG/Security Deposit furnished by the Vendor/Contractor.

Further, such bidder/vendor/Contractor shall be put on Blacklist/Holiday list of GAIL debarring them from future business with GAIL.

#### **16.0 Documents Establishing Goods' Eligibility and Conformity to Bidding Documents:**

16.1 Pursuant to ITB Clause 11, the bidder shall furnish, as part of the bid, documents establishing the eligibility and conformity to the Bidding Documents of all goods and services which the bidder proposes to supply under the Contract.

16.2 The documentary evidence of the goods and services' conformity to the Bidding Documents may be in the form of literature, drawings or data, and shall furnish:

- a) detailed description of the essential technical and performance characteristics of the goods;
- b) a clause-by-clause commentary on the PURCHASER'S Technical specifications demonstrating the goods and services' substantial responsiveness to the specifications.

16.3 For purpose of the commentary to be furnished under Clause-15.2 above, the bidder shall note that standards for workmanship, material and equipment, and reference to brand names

or catalogue numbers, designated by the PURCHASER in its Technical Specifications are intended to be descriptive only and not restrictive.

**17.0 Period of Validity of Bids:**

- 17.1 The bid shall remain valid for acceptance for **Four (4) months** from the final bid due date. PURCHASER shall reject a bid valid for a shorter period being non-responsive.
- 17.2 In exceptional circumstances, prior to expiry of the original bid validity period, the PURCHASER may request that the bidder to extend the period of bid validity for a specified additional period. The requests and the responses thereto shall be made in writing (by fax / post/ e-mail). A bidder may refuse the request without forfeiture of his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of its bid security for the period of the extension and in accordance with ITB Clause 17.0 in all respects.

**18.0 EMD / Bid Security:**

- 18.1 Pursuant to ITB Clause-10, the bidder shall furnish, as part of his bid, bid security in the amount specified in the Invitation for Bids.
- 18.2 The bid security is required to protect the PURCHASER against the risk of bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause-18.7
- 18.3 The bid security in US Dollars for bidders quoting in foreign currency and Indian Rupees for bidders quoting in Indian Rupees shall be in the form of Demand Draft/ Banker's Cheque in favour of GAIL (India) Limited, payable at State Bank of India, Pata (India) (issued by Indian Nationalized / Scheduled bank or first class International bank) or in the form of Bank Guarantee as per format enclosed in the Bidding Document.

GAIL shall not be liable to pay any bank charges, commission or interest on the amount of bid security.

In case, bid security is in the form of Bank Guarantee, the same shall be from any Indian scheduled bank or a branch of an International bank situated in India and registered with Reserve bank of India as scheduled foreign bank in case of Domestic and from any reputed International bank or Indian scheduled bank in case of foreign bidder. However, in case of Bank Guarantee from banks other than the Nationalized Indian banks, the bank must be commercial bank having net worth in excess of Rs.100 crores and a declaration to this effect should be made by such commercial bank either in the Bank Guarantee itself or separately on its letterhead.

The Bid Security submitted through BG/Letter of Credit shall be valid for two (02) months beyond the validity of the Bid as specified in Clause 17 of ITB.

- 18.4 Any bid not secured in accordance with ITB Clause 18.1 and 18.3 may be rejected by the PURCHASER as non-responsive.
- 18.5 Unsuccessful bidder's bid security will be discharged/returned ,as promptly as possible but not later than 30 days after the expiration of the period of bid validity prescribed by the PURCHASER, pursuant to ITB Clause-17.
- 18.6 The successful bidder's bid security will be discharged upon the bidder's accepting the Order, pursuant to ITB Clause-41 and furnishing the Contract Performance Guarantee pursuant to ITB Clause-42.
- 18.7 The bid security may be forfeited:

Signature of Bidder:

- a) If a bidder withdraws his bid during the period of bid validity.
- b) in the case of a successful bidder, if the bidder fails:
  - i) to accept the Purchase Order in accordance with ITB Clause-41 or
  - ii) to furnish Performance Guarantee in accordance with ITB Clause-42
  - iii) to accept correction of errors pursuant to ITB Clause-31.0
- c) If the Bidder changes the proposed manufacturer/technical specification etc. after submission of his bid.

18.8 Bid Security should be in favour of GAIL (India) Limited and addressed to GAIL Pata. Bid Security must indicate the **Bid Document number and the item** for which the bidder is quoting. This is essential to have proper co-relation at a later date. The Bid Security in the form of Bank Guarantee shall be in the form provided in the Bidding Document.

18.9 Exemption of submission of EMD/Bid bond granted for the following firms against submission of documentary proof.

- Public Sector Undertakings.
- Firms registered with NSIC will be exempted from payment of Earnest money/Bid Bond provided they are registered for the items they intend to quote against GAIL tender.
- Small scale Industries units registered with the NSIC, under its single point registration scheme.

**19.0 Pre-Bid meeting:**

19.1 The bidder(s) or his designated representative, who are interested to submit their bid are invited to attend a pre-bid meeting which will take place at GAIL (India) Limited, Polymer Bhawan, C&P Meeting Room, Pata, Dist. Auraiya (U.P.) India on the schedule date & time as specified in the IFB.

19.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

19.3 The bidder is requested, as far as possible, to submit any questions by courier or by fax/e-mail (**exactly in Format F3- bidders query**) to reach GAIL's office not later than one week before the meeting. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted in accordance with the following sub-clause.

19.4 The salient queries raised and the responses thereof will be transmitted (without identifying the sources of the question) through an Addendum/Corrigendum.

19.5 Non-attendance of the pre-bid meeting will not be a cause for disqualification of a bidder.

**20.0 Format and Signing of Bid (Please see Annexure-I, ITB for e-tendering):**

20.1 The documents of the bid shall be typed or written in indelible ink and shall be signed by the person or persons duly authorised to sign on behalf of the bidder. The name and position held by each person signing, must be typed or printed below the signature. All pages of the bid, except any catalogues/ literatures shall be signed and sealed by the person or persons signing the bid.

20.2 The bid shall contain no alterations, omissions or additions, unless such corrections are initialed by the person or persons signing the bid.

**21.0 Zero Deviation:**

21.1 Bidders to note that this is a **zero deviation tender**. GAIL will appreciate submission of offer based on the terms and conditions in the enclosed General Conditions of Contract (GCC-Goods), Special Conditions of Contract (SCC), Instructions to Bidders (ITB), Scope of supply, technical specifications etc. to avoid wastage of time and money in seeking clarifications on technical/ commercial aspects of the offer. Bidder may note that GAIL may not seek any technical and commercial clarifications after the receipt of the bids. **Bids with any deviation to the bid conditions shall be liable for rejection.**

**22.0 E-Payment:**

- 22.1 GAIL (India) Limited has initiated payments to Indian suppliers and contractors electronically, through e-banking be made to the bidder, in case order is placed on him. Further, the bidder should give their account number and other details in any one of the above banks to facilitate payment through e-banking.

**D. SUBMISSION OF BIDS**

**23.0 Sealing and Marking/Uploading of Bids:** Please refer IFB.

**24.0 Deadline for Submission of Bid:**

- 24.1 The PURCHASER may, at its discretion, on giving reasonable notice by fax or any written communication to all prospective bidders who have been issued the bid documents, extend the deadline for the submission of bids in which case all rights and obligations of the PURCHASER and the bidders, previously subject to the bid due date, shall thereafter be subject to the deadline as extended.

**25.0 Late Bids:**

- 25.1 The e-tendering system does not allow any bids to be submitted after the scheduled due date and time.

**26.0 Modification and Withdrawal of Bids:**

- 26.1 The bidder may modify or withdraw his bid after the bid submission, but before the due date of submission.  
26.2 No bid can be modified after the deadline for submission of bids.

**E. OPENING AND EVALUATION OF BIDS**

**27.0 Bid Opening:**

**28.0 UNPRICED TECHNO-COMMERCIAL BID OPENING:**

- 28.1 The Purchaser will open bids (Part-I & III) including withdrawals and modifications made pursuant to Clause 26 of ITB), at date, time as stipulated in IFB.

**27.1.1 Process to be Confidential:**

- 27.1.1.1 Information relating to the examination, clarifications, evaluation and comparison of bids and recommendations for the order, shall not be disclosed to bidders or any other person officially concerned with such process. Any effort by a bidder to influence the GAIL while processing the bid or award decision in any manner may result in rejection of such bid(s) and GAIL may initiate action against such bidders as deemed fit including putting them on "Holiday List".

**27.1.2 Contacting the Purchaser**

- 27.1.2.1 From the time of the bid opening to the time of the release of order, if any bidder wishes to contact the Purchaser for any matter relating to the bid it should do so in writing.

**27.1.3 Preliminary Examination of Bids:**

**27.1.3.1 Techno-Commercial Bid Evaluation:**

- 27.1.3.2 The PURCHASER will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required securities have been furnished, whether the documents have been properly signed and whether the bids are generally in order.  
27.1.3.3 Prior to the detailed evaluation, the PURCHASER will determine whether each bid is of acceptable quality, is generally complete and is responsive to the Bidding Documents. For purposes of this determination, a responsive bid is one which conforms to all the terms, conditions and specification of the bidding document, without deviations, objections, conditionality or reservations.  
27.1.3.4 No deviation, whatsoever, is permitted in the Bidding Documents.

27.1.3.5 The Purchaser will carry out a detailed evaluation of the bids previously determined to be responsive in order to determine whether the technical aspects are in accordance with the requirements set forth in the Bidding Documents. In order to reach such a determination, the Purchaser will examine and compare the technical aspects of the bids on the basis of the information supplied by the bidders, taking into account the following factors:

- (a) Overall completeness and compliance with the Technical Specifications; quality function and operation of any process control concept included in the bid. The bid that does not meet minimum acceptable standard of completeness, consistency and detail will be rejected as non-responsive.
- (b) Any other relevant factor, if any that the Purchaser deems necessary or prudent to be taken into consideration.
- (c) Requisite forms contain all necessary information including those required for meeting qualifying criteria stipulated in the Bidding Document.

**27.1.4** The PURCHASER will evaluate and compare the bids previously determined to be substantially responsive, pursuant to ITB Clause – 32 Bids not conforming to Bid Evaluation Criteria Appendix – 1 to IFB and technical specifications/requirements shall be rejected.

## **29.0 REJECTION CRITERIA:**

Bidders are advised to submit their bid strictly as per the terms and conditions of the bid document. In the event of deviation(s) stipulated by the bidder their bid shall be considered incomplete/non-responsive and the bid shall be liable for rejection. The following shall constitute REJECTION CRITERIA for this tender and bid may be summarily rejected if any deviation(s) to these conditions found in bid –

- i) Non-submission of EMD
- ii) Non-meeting BEC
- iii) Bids not submitted thru' e-tendering portal.
- iv) Bid Validity less than 4 months from final bid closing
- v) Non-acceptance of delivery period
- vi) Non-acceptance of Performance Guarantee
- vii) Non-acceptance of PRS clause
- viii) Non acceptance of Guarantee /Warranty clause
- ix) Non-submission of Firm and Fixed Price
- x) Non-submission of rate as per price schedule format (with all desired break-up i.e. Ex-works, taxes, duties, freight etc for Indian Bidder) The bid will be rejected in case written as actuals or to pay extra
- xi) Non-submission of 'Integrity Pact' as per GAIL's format, duly executed on plain paper
- xii) Non-acceptance of Resolution of Disputes/Arbitration Clause, applicable laws and force majeure etc.
- xiii) Non-quoting of post warrantee AMC charges for 3 yrs.
- xiv) Any deviation to scope of supply, specification, SCC etc.

## **30.0 Priced Bid Opening:**

30.1 The Purchaser shall inform the time, date and venue for priced bid opening to all such bidders who qualify pursuant to techno-commercial bid evaluation.

30.2 The PURCHASER will open priced bids of all bidders notified to attend priced bid opening, in the presence of authorized bidders' representatives. The bidders' representatives, who are present shall sign bid-opening register evidencing their attendance.

30.3 The bidders' names, bid prices, and such other details as the PURCHASER, at its discretion, may consider appropriate will be announced at the opening.

## **31.0 Arithmetic Correction**

31.1 The bids will be checked for any arithmetical errors as follows:

31.2 In case of any discrepancy between prices in words and prices in figures, the prices in words shall be valid and binding. In case of any error in total indicated by the Bidder, the unit price alone shall be considered valid and binding on the Bidder.

Signature of Bidder:

31.3 If the bidder does not accept the correction of errors, its bid will be rejected and the bid security will be forfeited.

### **32.0 EVALUATION AND COMPARISON OF BIDS:**

The evaluation of all the responsive bids for supplies shall be made as under to arrive at the lowest evaluated offer on over all basis.

- a. Ex-works price quoted by the bidder
- b. **(+)**Packing & Forwarding (if any) as quoted (if percentage mentioned, then calculated on a.)
- c. **(+)**Quoted rate of Excise Duty & Educational cess (if any) [if percentage mentioned, then calculated on (A+B)]
- d. **(+)**Quoted rate of Sales tax against form C or without concessional Form / VAT [if percentage mentioned, then calculated on (A+B+C)]
- e. **(+)**Transportation charges up to site as quoted [if percentage mentioned, then calculated on (A)]
- f. **(+) Charges for Installation & Commissioning including service tax**
- g. **(+) Charges for 3 year Post warranty Comprehensive AMC including service tax**
- h. **(+)**Inspection/testing charges or any other charges/taxes/duties mentioned by the bidder in price schedule format.
- i. **(+)** Commercial/Technical loading, (if any)
- j. **(-) Amount of ED & Service Taxes mentioned above or amount of Cenvat benefit against ED and Service tax to be passed on to GAIL, whichever is lower (refer Price schedule).**

In case of statutory changes, the rate of ED & Cess, CST/VAT considered for evaluation shall be prevailing rate as on final date of Un priced Bid opening.

Bidders are required to provide cenvat invoice to enable GAIL to avail cenvat benefit. In case the % or the amount of cenvat benefit is not mentioned (left blank) then same shall be considered as included and the ED mentioned will be taken as the cenvat benefit to be passed on to GAIL

The evaluated price of all the bidders as above shall be compared together to arrive at the lowest offer as per F.O.T. site basis inclusive of all duties and taxes and freight up to Pata site + Commercial/Technical loading, (if any) (-) cenvat benefit as mentioned above.

**NOTE: Price has to be quoted strictly in the price schedule format only with all desired break-up i.e. Ex-works, taxes, duties, freight etc for Indian Bidder.**  
**The bid will be rejected in case written as actuals or to pay extra**

### **33.0 Purchase Preference:**

33.1 Purchase preference to Central Government Public Sector Undertaking shall be allowed as per Government instructions in vogue

### **34.0 Public Procurement Policy from (MSEs):**

Following provision has been incorporated in tender for MSEs, in line with notification of Government of India, vide Gazette of India No. 503 dated 26.03.2012 proclaiming the Public Procurement Policy on procurement of goods and services from Micro and Small Enterprises (MSEs)

- i) Issue of Tender Documents (in case of Open Tenders) to MSEs free of cost.
- ii) Exemption to MSEs from payment of EMD/Bid Security.
- iii) In Tender, participating Micro and Small Enterprises quoting price within price band of L-1 +15% shall also be allowed to supply a portion of requirement by bringing down their prices to L1 price in a situation where L-1 price is from someone other than a micro and small enterprises and such micro and small enterprises shall be allowed to supply upto 20% of the total tendered value. In case of more than one such Micro and Small Enterprises, the supply shall be shared proportionately (to tendered quantity). Further, out of above 20%, 4% (20% of 20%) shall be from MSEs owned by SC/ST entrepreneurs. This quota is to be transferred to other MSEs in case of non-availability of MSEs owned by SC/ST entrepreneurs.
- iv) The quoted prices against various items shall remain valid in case of splitting of quantities of the items as above.
- v) In case bidder is a Micro or Small Enterprise under the Micro, Small and Medium Enterprises Development Act, 2006, the bidder shall submit the following:
  - a) **Documentary evidence that the bidder is a Micro or Small Enterprises registered with District Industries Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or any other body specified by Ministry of Micro, Small and Medium Enterprises.**
  - b) If the MSE is owned by SC/ST Entrepreneurs, the bidder shall furnish appropriate documentary evidence in this regard.

The above documents submitted by the bidder shall be duly certified by the Statutory Auditor of the bidder or a practicing Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's company/firm) where audited accounts are not mandatory as per law.

If the bidder does not provide the above confirmation or appropriate document or any evidence, then it will be presumed that they do not qualify for any preference admissible in the Public Procurement Policy (PPP), 2012.

### **35.0 CENTRAL EXCISE DUTY**

- 35.1 The quoted rate should be inclusive of all taxes duties as well as Central Excise Duty and applicable cess thereon. The bidder is required to mention the applicable rate and amount of Central Excise duty and cess thereon, as applicable on the final due date of the bid submission. Central Excise Duty and cess thereon shall be paid as per the rates/amount mentioned by the bidder in their offer on submission of documentary evidence / invoices issued under applicable provisions of Central Excise Law. Even in the event of statutory variation of Central Excise Duty and Cess thereon within the contract period (except on account of variation / change in the turnover of contractor), the same shall be paid by GAIL against documentary evidence.
- 35.2 In case the bidder procure the material from a vendor / sub-vendor for onward delivery to GAIL, Pata, then the name of the bidder may appear as 'buyer' and the name, address & details of GAIL (India) Limited, Pata shall appear as 'Consignee' on the Excise Invoice so as to enable GAIL, Pata to avail CENVAT Credit.
- 35.3 The supplier shall mention the following particulars of GAIL (India) Limited, Pata on the Excise Invoice. Besides following, if any other particulars of GAIL, Pata as consignee are required to be mentioned, if any, under Central Excise law on the date of dispatch, the same shall also be mentioned on the Invoice.

Consignee

GAIL (India) Limited  
Pata  
District: Auraiya

Signature of Bidder:



Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

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	Uttar Pradesh
	PIN 206 241
Consignee's ECC No.	AAACG1209JXM006
Central Excise Range	C3
Central Excise Division	C, LTU
	NBCC Plaza, Saket, New Delhi
Central Excise Commissionerate	LTU-Delhi,
Consignee's TIN No.	9828900731C
Consignee's CST No.	9828900731C

- 35.4 The supplies shall be accompanied with proper Excise Invoice as required under the Central Excise Law as applicable on the date of dispatch.
- 35.5 The bidder shall hand over the proper Invoice to GAIL, Pata in order to enable GAIL to avail CENVAT Credit. It shall be the responsibility of the bidder to pass on the CENVAT Credit benefit to GAIL (India) Limited, Pata, wherever applicable. In case GAIL loses any benefit/amount of CENVAT Credit, due to any fault of the bidder (eg. non submission of proper invoice timely), which could otherwise have been availed by GAIL (India) Limited, as per Rules, the same shall be recoverable from the contractor / not paid to the contractor.

#### **F. AWARD OF CONTRACT**

##### **36.0 Post Qualification:**

- 36.1 In the absence of prequalification, the PURCHASER will determine to its satisfaction whether the bidder selected as having submitted the lowest evaluated, responsive bid is qualified to satisfactorily perform the contract.
- 36.2 The determination will take into account the bidder's financial, technical and production capabilities. It will be based upon an examination of the documentary evidence of the bidder's qualifications submitted by the Bidder, pursuant to ITB Clause-10, as well as such other information as the PURCHASER deems necessary and appropriate.
- 36.3 An affirmative determination will be a prerequisite for award of the contract to the bidder. A negative determination will result in rejection of the bidder's bid.

##### **37.0 Award Criteria:**

- 37.1 The Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

##### **38.0 PURCHASER's Right to Vary Quantities at Time of Award:**

PURCHASER reserves the right at the time of award of ORDER to increase or decrease by upto 15 % the quantity of GOODS specified in the Material Requisition, without any change in unit price or other terms and conditions. Variation beyond this limit will be subject to mutual agreement between the PURCHASER and the Seller.

##### **39.0 PURCHASER's Right To Accept Any Bid And To reject Any or All Bids:**

PURCHASER reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligations to inform the affected bidder or bidders of the ground for the PURCHASER'S ACTION.

**40.0 Notification of Award / Fax of Intent:**

- 40.1 Prior to the expiration of period of bid validity the PURCHASER will notify the successful bidder in writing by fax or e-mail to be confirmed in writing, that his bid has been accepted. The notification of award / Fax of Intent will constitute the formation of the Contract.
- 40.2 Delivery shall be counted from the date of notification of award / Fax of Intent.
- 40.3 Upon the successful bidder's furnishing of contract performance bank guarantee, pursuant to ITB Clause-43, the PURCHASER will promptly notify each unsuccessful bidder and will discharge his bid security, pursuant to ITB Clause-17.

**41.0 Acceptance of Purchase Order:**

PURCHASER will issue the Purchase Order to the successful bidder, who, within 15 days of receipt of the same, shall sign all pages and return the acceptance copy to the PURCHASER.

**42.0 Performance Guarantee:**

- 42.1 Within 15 days of the receipt of the notification of award / Fax of Intent from the PURCHASER, the successful bidder shall furnish the performance guarantee for 10% of order value through DD/BG/LC in accordance with provisions of **General Conditions of Contract (GCC-Goods)** in the form provided in the bidding documents.
- 42.2 The proceeds of Performance Guarantee shall be appropriated by the PURCHASER as compensation for any loss resulting from the SELLER's failure to complete his obligations under the CONTRACT without prejudice to any of the rights or remedies the PURCHASER may be entitled to as per terms and conditions of CONTRACT. The proceeds of this Performance Guarantee shall also govern the successful performance of Goods and Services during the entire period of Contractual Warrantee/Guarantee.
- 42.3 The performance guarantee shall be denominated in the currency of the CONTRACT.
- 42.4 The Performance Guarantee shall be valid for the duration of 90 days beyond the expiry of Warrantee/Guarantee period. The Bank Guarantee will be discharged by PURCHASER not later than 6 months from the date of expiration of the Seller's entire obligations, including any warrantee obligations, under the CONTRACT.
- 42.5 The performance guarantee shall be towards faithful performance of the contractual obligations and performance of equipment. This Bank Guarantee shall be from any Indian scheduled bank or a branch of an International bank situated in India and registered with Reserve bank of India as scheduled foreign bank. However, in case of bank guarantees from banks other than the Nationalised Indian banks, the bank must be a commercial bank having net worth in excess of Rs 100 Crores and a declaration to this effect should be made by such commercial bank either in the Bank Guarantee itself or separately on its letterhead. This bank guarantee shall be valid for a period as stated in Clause-12 of General Conditions of Contract (GCC-Goods).
- 42.6 Failure of the successful bidder to comply with the requirements of this clause shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

**43.0 Income Tax Liability:**

- 43.1 The bidder will have to bear all income tax liability, if any both Corporate as well as for his personnel.

**44.0 Corrupt or Fraudulent Practices:**

- 44.1 The Purchaser requires that Bidders/Suppliers observe the highest standard of ethics during the procurement and execution of the order. In pursuance of this policy, the Purchaser:
- a) Defines, for the purposes of this provision, the terms set forth below as follows :
    - i) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and
    - ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Purchaser, and includes collusive practice among Bidders (prior to or after bid submission)

- designed to establish bid prices at artificial non-competitive levels and to deprive the Purchaser of the benefits of free and open competition;
- b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- c) will declare a firm ineligible, either indefinitely or for a stated period of time, if at any time the Purchaser determines that the firm has engaged in corrupt or fraudulent practices in competing for or in executing a contract.

**45.0 INTEGRITY PACT:**

45.1 The successful bidder shall be required to sign the integrity pact (as per the draft enclosed in the tender document) failing which their bid shall be liable for rejection.  
The "Principal" means "GAIL (INDIA) LIMITED" and "Counterparty" means "Vendor / Supplier / Contractor".

**45.2 COMMITMENTS AND OBLIGATIONS OF THE "COUNTERPARTY"**

- a) The Counterparty, directly or indirectly (through agent, consultant, advisor, etc.), shall not pay any bribe / influence or give undue / unlawful benefit to anyone to gain undue advantage in dealing with GAIL.
- b) The Counterparty will not engage in collusion of any kind including price fixation etc. with other Counterparts.
- c) The Counterparty will not pass GAIL's confidential information to any third party unless specifically authorized by GAIL in writing.
- d) The Counterparties shall promote and observe best ethical practices within their respective organizations.
- e) The Counterparty shall inform the Independent External Monitor.
- i) If it received any demand, directly or indirectly, for a bribe / favor or any illegal gratification / payment / benefit;
- ii) If it comes to know of any unethical or illegal payment / benefit;
- iii) If it makes any payment to any GAIL associate.
- V) The Counterparty shall not make any false or misleading allegations against GAIL or its associates.

**45.3 VIOLATIONS & CONSEQUENCES:**

- i) If a Counterparty commits a violation of its Commitments and Obligations under the Integrity Pact programmed ring bidding process, their entire Earnest Money Deposit / Bid Security, would be forfeited and in addition, they may be blacklisted from the GAIL business in future.
- ii) In case of violation of the Integrity pact by Counterparty after award of the Contract, GAIL shall be entitled to terminate the Contract. GAIL would forfeit the security deposits, en cash the bank guarantee(s) and other payments payable to Counterparty in such cases.
- iii) Subject to satisfaction of the Independent External Monitor, GAIL may ban / blacklist / put on holiday and exclude the Counterparty from future dealings until GAIL is satisfied that the Counterparty shall not commit any such violation in future.
- iv) In addition, of above, GAIL reserves its right to initiate criminal proceedings against the violating Counterparty, if the allegations by Counterparty are found frivolous, untrue and misleading and may impose exemplary cost for the same.
- v) The Counterparty will be entitled to claim as determined by the Independent External Monitor, if the above (d) is found incorrect.

**45.4 INDEPENDENT EXTERNAL MONITORS (IEMS)**

The following Independent External Monitor (IEM) has been appointed by GAIL, in terms of Integrity Pact (IP) which form part of GAIL Tenders / Contracts

**Sh. V. K. Gupta**

**E-mail: [vinddo102000@yahoo.com](mailto:vinddo102000@yahoo.com)**

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

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He is authorized to examine / consider all references made to it under this tender. The bidder(s), in case of any dispute(s) / complaint(s) pertaining to this tender may raise the issue either with the designated Tender Issuing Officer in GAIL or directly with the IEMs on the panel c/o Chief Vigilance Officer, GAIL (India) Limited, GAIL Bhawan, 16, Bhikaji Cama Place, R.K. Puram, New Delhi – 110 066.

**46.0 Settlement of disputes between Government Department and another and One Government Department and Public Enterprise and one Public Enterprise and another:**

Settlement of disputes between Government Department and another and One Government Department and Public Enterprise and one Public Enterprise and another, the Arbitration shall be as follows:

"In the event of any dispute or difference between the parties hereto, such dispute or difference shall be resolved amicably by mutual consultation or through the good offices of empowered agencies of the Government. If such resolution is not possible, then, the unresolved dispute or difference shall be referred to arbitration of an arbitrator to be nominated by Secretary, Department of Legal Affairs ("Law Secretary") in terms of the Office Memorandum No.55/3/1/75-CF, dated the 19th December 1975 issued by the Cabinet Secretariat (Department of Cabinet Affairs), as modified from time to time. The Arbitration Act 1940 (10 of 1940) shall not be applicable to the arbitration under this clause. The award of the Arbitrator shall be binding upon parties to the dispute. Provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of the award to Law Secretary whose decision shall bind the parties finally and conclusively.

**47.0 ERRANT BIDDERS:**

In case after price bid opening, the lowest evaluated bidder (L1) is not awarded the job for any mistake committed by him in bidding or withdrawal of bid or varying any term in regard thereof leading to re-tendering, GAIL shall forfeit Earnest Money paid by the bidder and such bidders shall be debarred from participation in re-tendering of the same job (s) / item(s).

# **SECTION- II**

## **General Conditions of Contract-Goods (GCC-Goods)**

General Conditions of Contract-GOODS

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## 1 Definitions

In this document, General Conditions of Contract (GCC-Goods), the following terms shall have the following respective meanings:

- 1.1 BIDDER : Designates the individual or legal entity which has made a proposal, a tender or a bid with the aim of concluding a Contract with the PURCHASER.
- 1.2 CONTRACT shall mean Purchase Order/Contract and all attached exhibits and documents referred to therein and all terms and conditions thereof together with any subsequent modifications thereto.
- 1.3 CONTRACT PRICE shall mean the price payable to the Seller under the Contract for the full and proper performance of his contractual obligations.
- 1.4 COMPLETION DATE shall mean the date on which the goods are successfully commissioned by the Seller and handed over to the PURCHASER.
- 1.5 COMMERCIAL OPERATION shall mean the condition of the operation in which the complete equipment covered under the Contract is officially declared by the PURCHASER to be available for continuous operation at different loads upto and including rated capacity.
- 1.6 DELIVERY terms shall be interpreted as per INCO TERMS 2000 in case of Contract with a foreign Bidder and as the date of LR/GR in the case of a contract with an Indian Bidder.
- 1.7 DRAWINGS shall mean and include Engineering drawings, sketches showing plans, sections and elevations in relation to the Contract together with modifications and/or revisions thereto.
- 1.8 ENGINEER or Engineer-in-Charge of the Project SITE shall mean the person designated from time to time by PURCHASER at SITE and shall include those who are expressly authorized by him to act for and on his behalf for operation of this CONTRACT.
- 1.9 FINAL ACCEPTANCE shall mean the PURCHASER's written acceptance of the Works performed under the Contract after successful completion of performance and guarantee test.
- 1.10 GOODS shall mean articles, materials, equipment, design and drawings, data and other property to be supplied by Seller to complete the contract.
- 1.11 INSPECTOR shall mean any person or outside Agency nominated by PURCHASER to inspect equipment, stagewise as well as final, before dispatch, at SELLER's works and on receipt at SITE as per terms of the CONTRACT.
- 1.12 INITIAL OPERATION shall mean the first integral operation of the complete equipment covered under the Contract with sub-systems and supporting equipment in service or available for service.
- 1.13 PURCHASER/ OWNER/GAIL shall mean GAIL (INDIA) LIMITED (GAIL) having its registered office at 16, BHIKAIJI CAMA PLACE, R.K.PURAM, NEW DELHI-110066 (INDIA). The term PURCHASER includes successors, assigns of GAIL.
- 1.14 PERFORMANCE AND GUARANTEE TESTS shall mean all operational checks and tests required to determine and demonstrate capacity, efficiency and operating characteristics as specified in the Contract documents.  
PROJECT designates the aggregate of the Goods and/or Services to be provided by one or more Contractors.  
Quantities – Bills of quantities  
  
Bills of quantities  
  
Designate the quantity calculations to be taken into account when these calculations are made from detailed or construction drawings, or from work actually performed, and presented according to a jointly agreed breakdown of the Goods and/or Services.
- 1.15 SELLER shall mean the person, firm or company with whom PURCHASE ORDER/CONTRACT is placed/entered into by PURCHASER for supply of equipment, materials and services. The term Seller includes its successors and assigns.
- 1.16 SERVICE shall mean erection, installation, testing, commissioning, provision of technical assistance, training and other such obligations of the Seller covered under the Contract.
- 1.17 SITE designates the land and/or any other premises on, under, in or across which the Goods and/or Services have to be supplied, erected, assembled, adjusted, arranged and/or commissioned.
- 1.18 SPECIFICATIONS shall mean and include schedules, details, description, statement of technical data, performance characteristics, standards (Indian as well as International) as applicable and specified in the Contract.
- 1.19 SUB-CONTRACT shall mean order placed by the Seller, for any portion of the contracted work, after necessary consent and approval of PURCHASER.
- 1.20 SUB-CONTRACTOR shall mean the person named in the CONTRACT for any part of the work or any person to whom any part of the CONTRACT has been sub-let by the SELLER with the consent in writing of the PURCHASER and will include the legal representatives, successors, and permitted assigns of such person.
- 1.21 START-UP shall mean the time period required to bring the equipments covered under the Contract from an inactive condition, when construction is essentially complete to the state of readiness for trial operation. The start-up period shall include preliminary inspection and check out of equipment and supporting subsystems, initial operation of the complete equipments covered under the Contract to obtain necessary pre-trial operation data, perform calibration and corrective action, shutdown inspection and adjustment prior to the trial operation period.

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- 1.22 TESTS shall mean such process or processes to be carried out by the Seller as are prescribed in the Contract or considered necessary by PURCHASER or his representative in order to ascertain quality, workmanship, performance and efficiency of equipment or part thereof.
- 1.23 TESTS ON COMPLETION shall mean such tests as prescribed in the Contract to be performed by the Seller before the Works are taken over by the PURCHASER.

## **2 Seller To Inform**

- 2.1 The Seller shall be deemed to have carefully examined all contract documents to his entire satisfaction. Any lack of information shall not in any way relieve the Seller of his responsibility to fulfill his obligation under the Contract.

## **3 Application**

- 3.1 These General Conditions of Contract (GCC-Goods) shall apply to the extent that they are not superseded by provisions of other parts of the Contract.

## **4 Country of Origin**

- 4.1 For purposes of this Clause "origin" means the place where the Goods were mined, grown or produced, or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

## **5 Scope of Contract**

- 5.1 Scope of the CONTRACT shall be as defined in the PURCHASE ORDER/CONTRACT specifications, drawings and Annexure thereto.
- 5.2 Completeness of the EQUIPMENT shall be the responsibility of the SELLER. Any equipment, fittings and accessories which may not be specifically mentioned in the specifications or drawings, but which are usual or necessary for the satisfactory functioning of the equipment (successful operation and functioning of the EQUIPMENT being SELLER's responsibility) shall be provided by SELLER without any extra cost.
- 5.3 The SELLER shall follow the best modern practices in the manufacture of high grade EQUIPMENT notwithstanding any omission in the specifications. The true intent and meaning of these documents is that SELLER shall in all respects, design, engineer, manufacture and supply the equipment in a thorough workmanlike manner and supply the same in prescribed time to the entire satisfaction of PURCHASER.
- 5.4 The SELLER shall furnish 2 (two) copies in English language of Technical documents, final drawings, preservation instructions, operation and maintenance manuals, test certificates, spare parts catalogues for all equipments to the PURCHASER.
- 5.5 The documents once submitted by the SELLER shall be firm and final and not subject to subsequent changes. The SELLER shall be responsible for any loss to the PURCHASER consequent to furnishing of incorrect data/drawings.
- 5.6 All dimensions and weight should be in metric system.
- 5.7 All equipment to be supplied and work to be carried out under the CONTRACT shall conform to and comply with the provisions of relevant regulations/Acts(State Government or Central Government) as may be applicable to the type of equipment/work carried out and necessary certificates shall be furnished.
- 5.8 The Seller shall provide cross sectional drawings, wherever applicable, to identify the spare part numbers and their location. The size of bearings, their make and number shall be furnished.
- 5.9 Specifications, design and drawings issued to the SELLER alongwith RFQ and CONTRACT are not sold or given but loaned. These shall remain property of PURCHASER or its assigns and are subject to recall by PURCHASER. The SELLER and his employees shall not make use of the drawings, specifications and technical information for any purpose at any time except for manufacture against the CONTRACT and shall not disclose the same to any person, firm or corporate body, without written permission of PURCHASER. All such details shall be kept confidential.
- 5.10 SELLER shall pack, protect, mark and arrange for despatch of EQUIPMENT as per instructions given in the CONTRACT.

## **6 Standards**

- 6.1 The GOODS supplied under the CONTRACT shall conform to the standards mentioned in the Technical Specifications, or such other standards which ensure equal or higher quality, and when no applicable standard is mentioned, to the authoritative standard appropriate to the GOODS' country of origin and such standards shall be the latest issued by the concerned institution.

## **7 Instructions, Direction & Correspondence**

- 7.1 The materials described in the CONTRACT are to be supplied according to the standards, data sheets, tables, specifications and drawings attached thereto and/or enclosed with the CONTRACT, itself and according to all conditions, both general and specific enclosed with the contract, unless any or all of them have been modified or cancelled in writing as a whole or in part.

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- a. All instructions and orders to SELLER shall, excepting what is herein provided, be given by PURCHASER.
- b. All the work shall be carried out under the direction of and to the satisfaction of PURCHASER
- c. All communications including technical/commercial clarifications and/or comments shall be addressed to PURCHASER and shall always bear reference to the CONTRACT.
- d. Invoices for payment against CONTRACT shall be addressed to PURCHASER.
- e. The CONTRACT number shall be shown on all invoices, communications, packing lists, containers and bills of lading/LR, etc.

## **8 Contract Obligations**

- 8.1 Once a contract is confirmed and signed, the terms and conditions contained therein shall take precedence over the Seller's bid and all previous correspondence.

## **9 Modification In Contract**

- 9.1 All modifications leading to changes in the CONTRACT with respect to technical and/or commercial aspects including terms of delivery, shall be considered valid only when accepted in writing by PURCHASER by issuing amendment to the CONTRACT. Issuance of acceptance or otherwise in such cases shall not be any ground for extension of agreed delivery date and also shall not affect the performance of contract in any manner except to the extent mutually agreed through a modification of contract.
- 9.2 PURCHASER shall not be bound by any printed conditions or provisions in the SELLER's Bid Forms or acknowledgment of CONTRACT, invoices, packing list and other documents which purport to impose any conditions at variance with or supplemental to CONTRACT.

## **10 Use of Contract Documents & Information**

- 10.1 The Seller shall not, without the Purchaser's prior written consent, disclose the CONTRACT or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the PURCHASER in connection therewith, to any person other than a person employed by the SELLER in the performance of the CONTRACT. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purpose of such performance.
- 10.2 The SELLER shall not, without the PURCHASER's prior written consent, make use of any document or information enumerated in Article 10.1. except for purpose of performing the CONTRACT.

## **11 Patent Rights, Liability & Compliance of Regulations**

- 11.1 SELLER hereby warrants that the use or sale of the materials delivered hereunder will not infringe claims of any patent covering such material and SELLER agrees to be responsible for and to defend at his sole expense all suits and proceedings against PURCHASER based on any such alleged patent infringement and to pay all costs, expenses and damages which PURCHASER may have to pay or incur by reason of any such suit or proceedings.
- 11.2 The SELLER shall indemnify the PURCHASER against all third party claims of infringement of patent, trade mark or industrial design rights arising from use of the GOODS or any part thereof in the PURCHASER's country.
- 11.3 SELLER shall also protect and fully indemnify the PURCHASER from any claims from SELLER'S workmen/employees or their heirs, dependants, representatives, etc. or from any other person/persons or bodies/companies etc. for any acts of commissions or omission while executing the CONTRACT.
- 11.4 SELLER shall be responsible for compliance with all requirements under the laws and shall protect and indemnify completely the PURCHASER from any claims/penalties arising out of any infringements.

## **12 Contract cum Performance Bank Guarantee (CPBG)**

Within 15 days after the SELLER's receipt of notification of award of the CONTRACT, the SELLER shall furnish Performance Guarantee in the form of Bank Guarantee/irrevocable Letter of Credit to the PURCHASER, in the form provided in the Bidding Documents, for an amount equivalent to 10% of the total value of the CONTRACT.

The proceeds of Performance Guarantee shall be appropriated by the PURCHASER as compensation for any loss resulting from the SELLER's failure to complete his obligations under the CONTRACT without prejudice to any of the rights or remedies the PURCHASER may be entitled to as per terms and conditions of CONTRACT. The proceeds of this Performance Guarantee shall also govern the successful performance of Goods and Services during the entire period of Contractual Warrantee / Guarantee.

The performance guarantee shall be denominated in the currency of the CONTRACT.

The Performance Guarantee shall be valid for the duration of 90 days beyond the expiry of Warrantee/Guarantee period. The Bank Guarantee will be discharged by PURCHASER not later than 6 months

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from the date of expiration of the Seller's entire obligations, including any warrantee obligations, under the CONTRACT.

### **13 Inspection, Testing & Expediting**

- 13.1 The PURCHASER or its representative shall have the right to inspect and/or to test the GOODS to confirm their conformity to the CONTRACT specifications. The special conditions of CONTRACT and/or the Technical Specifications shall specify what inspections and tests the PURCHASER requires and where they are to be conducted. The PURCHASER shall notify the SELLER in writing the identity of any representative(s) retained for these purposes.
- 13.2 The inspections and tests may be conducted on the premises of the SELLER or his sub-contractor(s), at point of DELIVERY and/or at the GOODS' final destination, When conducted on the premises of the SELLER or his sub-contractor (s), all reasonable facilities and assistance including access to the drawings and production data shall be furnished to the inspectors at no charge to the PURCHASER.
- 13.3 Should any inspected or tested GOODS fail to conform to the specifications, the PURCHASER may reject them and the SELLER shall either replace the rejected GOODS or make all alterations necessary to meet Specifications' requirements, free of cost to the PURCHASER.
- 13.4 The PURCHASER's right to inspect, test and where necessary reject the GOODS after the GOODS' arrival in the PURCHASER's country shall in no way be limited or waived by reason of the GOODS having previously been inspected, tested and passed by the PURCHASER, or their representative prior to the GOODS shipment from the country of origin.
- 13.5 The INSPECTOR shall follow the progress of the manufacture of the GOODS under the CONTRACT to ensure that the requirements outlined in the CONTRACT are not being deviated with respect to schedule and quality.
- 13.6 SELLER shall allow the INSPECTOR to visit, during working hours, the workshops relevant for execution of the CONTRACT during the entire period of CONTRACT validity.
- 13.7 In order to enable PURCHASER's representatives to obtain entry visas in time, SELLER shall notify PURCHASER two months before assembly, testing and packing of main EQUIPMENT. If requested, SELLER shall assist PURCHASER's representatives in getting visas in the shortest possible time (applicable only in case of foreign order).
- 13.8 SELLER shall place at the disposal of the INSPECTOR, free of charge, all tools, instruments, and other aPelargonic Acidratus necessary for the inspection and/or testing of the GOODS. The INSPECTOR is entitled to prohibit the use and dispatch of GOODS and/or materials which have failed to comply with the characteristics required for the GOODS during tests and inspections.
- 13.9 SELLER shall advise in writing of any delay in the inspection program at the earliest, describing in detail the reasons for delay and the proposed corrective action.
- 13.10 ALL TESTS and trials in general, including those to be carried out for materials not manufactured by SELLER shall be witnessed by the INSPECTOR. Therefore, SELLER shall confirm to PURCHASER by fax or e-mail about the exact date of inspection with at least 30 days notice. SELLER shall specify the GOODS and quantities ready for testing and indicate whether a preliminary or final test is to be carried out.
- 13.11 If on receipt of this notice, PURCHASER should waive the right to witness the test, timely information will be given accordingly.
- 13.12 Any and all expenses incurred in connection with tests, preparation of reports and analysis made by qualified laboratories, necessary technical documents, testing documents and drawings shall be at SELLER's cost. The technical documents shall include the reference and numbers of the standards used in the construction and, wherever deemed practical by the INSPECTOR, copy of such standards.
- 13.13 Nothing in Article-13 shall in any way release the SELLER from any warrantee or other obligations under this CONTRACT.
- 13.14 Arrangements for all inspections required by Indian Statutory Authorities and as specified in technical specifications shall be made by SELLER.
- 13.15 **Inspection & Rejection of Materials by consignees**  
When materials are rejected by the consignee, the supplier shall be intimated with the details of such rejected materials, as well as the reasons for their rejection, also giving location where such materials are lying at the risk and cost of the contractor/supplier. The supplier will be called upon either to remove the materials or to give instructions as to their disposal within 14 days and in the case of dangerous, infected and perishable materials within 48 hours, failing which the consignee will either return the materials to the contractor freight to pay or otherwise dispose them off at the contractor's risk and cost. The PURCHASER shall also be entitled to recover handling and storage charges for the period, during which the rejected materials are not removed @ 5% of the value of materials for each month or part of a month till the rejected materials are finally disposed off.

### **14 Time Schedule**

- 14.1 Time Schedule Network/Bar Chart
  - 14.1.1 Together with the Contract confirmation, SELLER shall submit to PURCHASER, his time schedule regarding the documentation, manufacture, testing, supply, erection and commissioning of the GOODS.
  - 14.1.2 The time schedule will be in the form of a network or a bar chart clearly indicating all main or key events regarding documentation, supply of raw materials, manufacturing, testing, delivery, erection and commissioning.

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- 14.2 14.3.1 PURCHASER's representatives shall have the right to inspect SELLER's premises with a view to evaluating the actual progress of work on the basis of SELLER's time schedule documentation.
- 14.3.2 Irrespective of such inspection, SELLER shall advise PURCHASER, at the earliest possible date of any anticipated delay in the progress.
- 14.4 Notwithstanding the above, in case progress on the execution of contract at various stages is not as per phased time schedule and is not satisfactory in the opinion of the PURCHASER which shall be conclusive or SELLER shall neglect to execute the CONTRACT with due diligence and expedition or shall contravene the provisions of the CONTRACT, PURCHASER may give notice of the same in writing to the SELLER calling upon him to make good the failure, neglect or contravention complained of. Should SELLER fail to comply with such notice within the period considered reasonable by PURCHASER, the PURCHASER shall have the option and be at liberty to take the CONTRACT wholly or in part out of the SELLER's hand and make alternative arrangements to obtain the requirements and completion of CONTRACT at the SELLER's risk and cost and recover from the SELLER, all extra cost incurred by the PURCHASER on this account. In such event PURCHASER shall not be responsible for any loss that the SELLER may incur and SELLER shall not be entitled to any gain. PURCHASER shall, in addition, have the right to encash Performance Guarantee in full or part (if applicable),.

## **15 Delivery & Documents**

- 15.1 Delivery of the GOODS shall be made by the SELLER in accordance with terms specified in the CONTRACT, and the goods shall remain at the risk of the SELLER until delivery has been completed.
- 15.2 Delivery shall be deemed to have been made :
- In the case of FOB, CFR & CIF Contracts, when the Goods have been put on board the ship, at the specified port of loading and a clean Bill of Lading is obtained. The date of Bill of Lading shall be considered as the delivery date.
  - In case of FOT despatch point contract (For Indian bidder), on evidence that the goods have been loaded on the carrier and a negotiable copy of the GOODS receipt obtained. The date of LR/GR shall be considered as the date of delivery.
  - In case of FOT site (for Indian bidders) on receipt of goods by PURCHASER/ at the designated site(s).
- 15.3 The delivery terms are binding and essential and consequently, no delay is allowed without the written approval of PURCHASER. Any request concerning delay will be void unless accepted by PURCHASER through a modification to the CONTRACT.
- 15.4 Delivery time shall include time for submission of drawings for approval, incorporation of comments, if any, and final approval of drawings by PURCHASER.
- 15.5 In the event of delay in delivery, Price Reduction Schedule as stipulated in Article – 26 shall apply.
- 15.6 The documentation, in English Language, shall be delivered in due time, in proper form and in the required number of copies as specified in the contract.
- 15.7 The additional copies of final drawings and instructions will be included in the package of goods, properly enveloped and protected.
- 15.8 The SELLER should comply with the Packing, Marking and Shipping Documentation & Specifications enclosed.

## **16 Transit Risk Insurance**

- 16.1 All goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery.
- 16.2 Where delivery is on FOB or CFR basis, marine insurance shall be the responsibility of the Purchaser.  
Insurance Requirements:  
Indigenous Bidders : Transit risk insurance from F.O.T. despatch point onwards shall be arranged and borne by GAIL.  
Foreign Bidders : Marine insurance as well as transit insurance in Purchaser's country shall be arranged and borne by GAIL.  
The SELLER shall ensure that in effecting despatch of materials, the primary responsibility of the carriers for safe movement is always retained so that the PURCHASER's interests are fully safeguarded and are in no way jeopardized. The Seller shall furnish the cost of materials against each equipment.

## **17. Transportation**

17. Where the SELLER is required under the CONTRACT to deliver the GOODS FOB, transport of the GOODS until delivery, that is, upto and including the point of putting the GOODS on board the export conveyance at the specified port of loading, shall be arranged and paid for by the SELLER and the cost thereof shall be included in the Contract price.
- 17.2 Where the SELLER is required under the CONTRACT to deliver the GOODS CFR or CIF, transport of the Goods to the port of discharge or such other point in the country of destination as shall be specified in the CONTRACT shall be arranged and paid for by the SELLER and the cost thereof shall be included in the Contract price.

## **18 Incidental Services**

- 18.1 The Seller may be required to provide any or all of the following services:

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- 18.1.1 Performance or supervision of onsite assembly and/or start-up of the supplied Goods:
- 18.1.2 Furnishing tools required for assembly and/or maintenance of the supplied Goods:
- 18.1.3 Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Seller of any warrantee/guarantee obligations under the Contract.
- 18.1.4 Training of the Purchaser's personnel at the Seller's plant and/or at Site, in assembly, start-up operation, maintenance and/or repair of the supplied Goods at no extra cost. However, Purchaser will bear boarding, lodging & personal expenses of Trainees.
- 18.2 Prices charged by the Seller for the preceding incidental services, shall not exceed the prevailing rates charged to other parties by the Seller for similar services.
- 18.3 When required, Seller shall depute necessary personnel for supervision and/or erection of the Equipment at site for duration to be specified by Purchaser on mutually agreed terms. Seller's personnel shall be available at Site within seven days for emergency action and twenty-one days for medium and long-term assistance, from the date of notice given by Purchaser.
- 18.4 The cost of incidental services shall not be included in the quoted prices. The cost of applicable incidental services should be shown separately in the price schedules, if asked.

## **19 Spare Parts and Maintenance Tools**

- 19.1 Seller may be required to provide any or all of the following materials and notification pertaining to spare parts manufactured or distributed by the Seller.
  - 19.1.1 Such spare parts as the Purchaser may opt to purchase from the Seller, provided that his option shall not relieve the Seller of any warrantee obligations under the Contract, and
  - 19.1.2 In the event of termination of production of the spare parts:
    - i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements, and
    - ii) Following such termination, furnishing at no cost to the Purchaser, the blue prints, drawings and specifications of the spare parts, if any when requested.
- 19.2 Seller shall supply item wise list with value of each item of spare parts and maintenance tools requirements, along with full details of manufacturers/vendors for such spares/maintenance tools for
  - 19.2.1 The construction, execution and commissioning.
  - 19.2.2 Two years operation and maintenance.
- 19.3 Spare parts shall be new and of first class quality as per engineering standards/ codes, free of any defects (even concealed), deficiency in design, materials and workmanship and also shall be completely interchangeable with the corresponding parts.
- 19.4 Type and sizes of bearings shall be clearly indicated.
- 19.5 Spare parts shall be packed for long storage under tropical climatic conditions in suitable cases, clearly marked as to intended purpose.
- 19.6 A list of special tools and gauges required for normal maintenance and special handling and lifting appliances, if any, for the Goods shall be submitted to Purchaser.
- 19.7 Bidders should note that if they do not comply with Clause 19.2 above, their quotation may be rejected.

## **20 Guarantee**

- 20.1 All Goods or Materials shall be supplied strictly in accordance with the specifications, drawings, data sheets, other attachments and conditions stated in the Contract.  
No deviation from such specifications or alterations or of these conditions shall be made without PURCHASER'S agreement in writing which must be obtained before any work against the order is commenced. All materials supplied by the SELLER pursuant to the Contract (irrespective of whether engineering, design data or other information has been furnished, reviewed or approved by PURCHASER) are guaranteed to be of the best quality of their respective kinds (unless otherwise specifically authorized in writing by PURCHASER) and shall be free from faulty design, workmanship and materials, and to be of sufficient size and capacity and of proper materials so as to fulfill in all respects all operating conditions, if any, specified in the Contract.  
If any trouble or defect, originating with the design, material, workmanship or operating characteristics of any materials, arises at any time prior to twelve(12) months from the date of the use for which the materials supplied under the Contract form a part thereof, or twenty four (24) months from the date of shipment (for each lot) whichever period shall first expire, and the SELLER is notified thereof, SELLER shall, at his own expense and as promptly as possible, make such alterations, repairs and replacements as may necessary to permit the materials to function in accordance with the specifications and to fulfill the foregoing guarantees.  
PURCHASER may, at his option, remove such defective materials, at SELLER'S expense in which event SELLER shall, without cost to PURCHASER and as promptly as possible, furnish and install proper materials. Repaired or replaced materials shall be similarly guaranteed by the SELLER for a period of no less than twelve (12) months from the date of replacement/repair.  
In the event that the materials supplied do not meet the specifications and/or not in accordance with the drawings data sheets or the terms of the Contract and rectification is required at site, PURCHASER shall notify the SELLER giving full details of differences. The SELLER shall attend the site within seven (7) days of receipt of such notice to meet and agree with representatives of PURCHASER, the action required to correct the

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deficiency. Should the SELLER fail to attend meeting at Site within the time specified above, PURCHASER shall immediately rectify the work/materials and SELLER shall reimburse PURCHASER all costs and expenses incurred in connection with such trouble or defect.

## **20.2 PERFORMANCE GUARANTEE OF EQUIPMENT**

- 20.2.1 SELLER shall guarantee that the performance of the EQUIPMENT supplied under the CONTRACT shall be strictly in conformity with the specifications and shall perform the duties specified under the CONTRACT.
- 20.2.2 If the SELLER fails to prove the guaranteed performance of the EQUIPMENT set forth in the specification, the SELLER shall investigate the causes and carry out necessary rectifications/modifications to achieve the guaranteed performance. In case the SELLER fails to do so within a reasonable period, the SELLER shall replace the EQUIPMENT and prove guaranteed performance of the new equipment without any extra cost to PURCHASER.
- 20.2.3 If the SELLER fails to prove the guarantee within a reasonable period, PURCHASER/ shall have the option to take over the EQUIPMENT and rectify, if possible, the EQUIPMENT to fulfill the guarantees and/or to make necessary additions to make up the deficiency at Seller's risk and cost. All expenditure incurred by the PURCHASER in this regard shall be to SELLER's account.

## **21 Terms of Payment**

- 21.1 The method of payment to be made to the SELLER under this CONTRACT shall be specified in the Special Conditions of Contract.
- 21.2 The type(s) of payment to be made to the SELLER under this CONTRACT shall be specified in the Special Conditions of Contract.
- 21.3 The SELLER's request(s) for payment shall be made to the PURCHASER in writing accompanied by an invoice describing, as appropriate, the Goods delivered and services performed, and by shipping documents submitted, and upon fulfillment of other obligations stipulated in the Contract.
- 21.5 Payment will be made in the currency or currencies in which the Contract Price has been stated in the SELLER's bid, as well as in other currencies in which the SELLER had indicated in his bid that he intends to incur expenditure in the performance of the Contract and wishes to be paid. If the requirements are stated as a percentage of the bid price alongwith exchange rates used in such calculations these exchange rates shall be maintained.

### **General Notes:**

1. All foreign currency payments to foreign bidder shall be released through an irrevocable Letter of Credit, which shall be opened through Government of India Nationalized Bank and hence shall not be confirmed. In case any bidder insists on confirmation, charges towards confirmation shall be borne by him. L/C shall be established within 30 days after receipt of unconditional acceptance of Letter /Fax of Intent.
2. For dispatches on FOT dispatch point (in India) basis, the payment shall be through PURCHASER's bank. Payment through Bank, wherever applicable, shall be released as per normal banking procedures.
3. Payment shall be released within 30 days after receipt of relevant documents complete in all respects.
4. All bank charges incurred in connection with payments shall be to Seller's account in case of Indian bidders and to respective accounts in case of Foreign bidder.
5. Unless otherwise specifically stated in bid document, all payments shall be made in the currency quoted.
6. No interest charges for delay in payments, if any, shall be payable by PURCHASER.
7. In case of Indian bidder, variation, if any, on account of customs duty on their built-in- import content, as per terms of bid document, shall be claimed separately by bidder after receipt of goods at site (s). However, any price benefits to the PURCHASER, on account of such variation as per terms specified in the bid document, shall be passed on to the PURCHASER alongwith invoicing itself.
8. Agency commission, if any, to Indian agent for Foreign bidders, indicated in prices, shall be paid to the agent in equivalent Indian Rupees on receipt and acceptance of material at site.

## **22 Prices**

- 22.1 Prices charged by the SELLER for Goods delivered and services performed under the CONTRACT shall not, with the exception of any price adjustments authorized by the Contract vary from the prices quoted by the SELLER in his bid.

## **23 Subletting & Assignment**

- 23.1 The contractor shall not without previous consent in writing of the PURCHASER authority, sublet, transfer or assign the contract or any part thereof or interest therein or benefit or advantage thereof in any manner whatsoever. Provided, nevertheless, that any such consent shall not relieve the contractor from any obligation, duty or responsibility under the contract.

## **24 Time As Essence of Contract**

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24.1 The time and date of delivery/completion of the GOODS/SERVICES as stipulated in the Contract shall be deemed to be the essence of the Contract.

**25 Delays In The Seller's Performance**

25.1 If the specified delivery schedule is not adhered to or the progress of manufacture or supply of the items is not satisfactory or is not in accordance with the progress schedule the PURCHASER has the right to:

- i) hire for period of delay from elsewhere goods which in PURCHASER's opinion will meet the same purpose as the goods which are delayed and SELLER shall be liable without limitation for the hire charges; or
- ii) cancel the CONTRACT in whole or in part without liability for cancellation charges. In that event, PURCHASER may procure from elsewhere goods which PURCHASER's opinion would meet the same purpose as the goods for which CONTRACT is cancelled and SELLER shall be liable without limitations for the difference between the cost of such substitution and the price set forth in the CONTRACT for the goods involved; or
- iii) hire the substitute goods vide (I) above and if the ordered goods continue to remain undelivered thereafter, cancel the order in part or in full vide (ii) above.

25.1 Any inexcusable delay by the SELLER or his sub-contractor shall render the SELLER liable, without prejudice to any other terms of the Contract, to any or all of the following sanctions: forfeiture of Contract performance guarantee (if applicable), imposition of price reduction for delay in delivery and termination of the contract for default.

## **26 Price Reduction Schedule For Delayed Delivery**

26.1 Subject to Article -29, if the SELLER fails to deliver any or all of the GOODS or performance the services within the time period (s) specified in the CONTRACT, the PURCHASER shall, without prejudice to his other remedies under the CONTRACT, deduct from the CONTRACT PRICE, a sum calculated on the basis of the CONTRACT PRICE, including subsequent modifications.

26.1.1 Deductions shall apply as per following formula:

In case of delay in delivery of equipment/materials or delay in completion, total contract price shall be reduced by 1/2% (Half percent) of the total contract price per complete week of delay or part thereof subject to a maximum of 5% (Five percent) of the total contract price.

26.2 In case of delay in delivery on the part of Seller, the invoice/document value shall be reduced proportionately for the delay and payment shall be released accordingly.

26.3 In the event the invoice value is not reduced proportionately for the delay, the PURCHASER may deduct the amount so payable by SELLER, from any amount falling due to the SELLER or by recovery against the Performance Guarantee (if applicable).

Both seller and PURCHASER agree that the above percentages of price reduction are genuine pre estimates of the loss/damage which the PURCHASER would have suffered on account of delay/breach on the part of the SELLER and the said amount will be payable on demand without there being any proof of the actual loss/or damage caused by such breach/delay. A decision of the PURCHASER in the matter of applicability of price reduction shall be final and binding.

## **27 Rejections, Removal of Rejected Equipment & Replacement**

27.1 Preliminary inspection at SELLER's works by INSPECTOR shall not prejudice Purchaser's claim for rejection of the EQUIPMENT on final inspection at SITE or claims under warranty provisions.

27.2 If the EQUIPMENTS are not of specification or fail to perform specified duties or are otherwise not satisfactory the PURCHASER shall be entitled to reject the EQUIPMENT/MATERIAL or part thereof and ask free replacement within reasonable time failing which obtain his requirements from elsewhere at SELLER's cost and risk.

27.3 Nothing in this clause shall be deemed to deprive the PURCHASER AND/OR AFFECT ANY rights under the Contract which it may otherwise have in respect of such defects or deficiencies or in any way relieve the SELLER of his obligations under the Contract.

27.4 EQUIPMENT rejected by the PURCHASER shall be removed by the Seller at his cost within 14 days of notice after repaying the amounts received against the SUPPLY. The PURCHASER shall in no way be responsible for any deterioration or damage to the EQUIPMENT under any circumstances whatsoever.

27.5 In case of rejection of EQUIPMENT, PURCHASER shall have the right to recover the amounts, if any, from any of CONTRACTOR'S invoices pending with PURCHASER or by alternative method(s).

## **28 Termination of Contract**

28.1 Termination for Default

28.1.1 The PURCHASER may, without prejudice to any other remedy for breach of CONTRACT, by written notice of default sent to the SELLER, terminate the CONTRACT in whole or in part:

A) If the SELLER fails to deliver any or all of the GOODS within the time period(s) specified in the CONTRACT; or

B) If the SELLER fails to perform any other obligation(s) under the CONTRACT, and

C) If the SELLER, in either of the above circumstances, does not cure his failure within a period of 30 days (or such longer period as the PURCHASER may authorize in writing) after receipt of the default notice from the PURCHASER.

28.1.2 In the event the PURCHASER terminates the CONTRACT in whole or in part, pursuant to Article 28.1.1, the PURCHASER may procure, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered and the SELLER shall be liable to the PURCHASER for any excess costs for such similar GOODS. However, the SELLER shall continue performance of the CONTRACT to the extent not terminated.

28.1.3 In case of termination of CONTRACT herein set forth (under clause 28) except under conditions of Force Majeure and termination after expiry of contract, the VENDOR shall be put under holiday [i.e. neither any enquiry will be issued to the party by GAIL (India) Ltd. Against any type of tender nor their offer will be considered by GAIL against any ongoing tender (s) where contract between GAIL and that particular VENDOR (as a bidder) has not been finalized] for three years from the date of termination by GAIL (India) Ltd. to such VENDOR.

28.2 Termination for Insolvency

The PURCHASER, may at any time, terminate the CONTRACT by giving written notice to the SELLER, without compensation to the SELLER, if the SELLER becomes bankrupt or otherwise insolvent, provided that such

Signature of Bidder:

termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the PURCHASER.

**28.3 Termination for Convenience**

**28.3.1** The PURCHASER may, by written notice sent to the SELLER, terminate the CONTRACT, in whole or part, at any time for his convenience. The notice of termination shall specify that termination is for the PURCHASER's convenience, the extent to which performance of work under the CONTRACT is terminated and the date upon which such termination becomes effective.

**28.3.2** The GOODS that are complete and ready for shipment within 30 days after the SELLER's receipt of notice of termination shall be purchased by the PURCHASER at the CONTRACT terms and prices. For the remaining GOODS, the PURCHASER may opt:

- a) to have any portion completed and delivered at the CONTRACT terms and prices, and /or
- b) to cancel the remainder and pay to the SELLER an agreed amount for partially completed GOODS and for materials and parts previously procured by the SELLER.

**29 Force Majeure**

**29.1** Shall mean and be limited to the following:

- a) War/hostilities
- b) Riot or Civil commotion
- c) Earthquake, flood, tempest, lightening or other natural physical disaster.
- d) Restrictions imposed by the Government or other Statutory bodies which prevents or delays the execution of the Contract by the SELLER.

The SELLER shall advise PURCHASER by a registered letter duly certified by the local Chamber of Commerce or statutory authorities, the beginning and end of the above causes of delay within seven (7) days of the occurrence and cessation of such Force Majeure Conditions. In the event of delay lasting over one month, if arising out of causes of Force Majeure, PURCHASER reserves the right to cancel the Contract and the provisions governing termination stated under Article 28.0 shall apply.

For delays arising out of Force Majeure, the SELLER shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force Majeure and neither PURCHASER nor SELLER shall be liable to pay extra costs provided it is mutually established that Force Majeure Conditions did actually exist.

SELLER shall categorically specify the extent of Force Majeure Conditions prevalent in their works at the time of submitting their bid and whether the same have been taken into consideration or not in their quotations. In the event of any force majeure cause, the SELLER or the PURCHASER shall not be liable for delays in performing their obligations under this order and the delivery dates will be extended to the SELLER without being subject to price reduction for delayed deliveries, as stated elsewhere.

**30 Resolution of Disputes/Arbitration**

**30.1** The PURCHASER and the SELLER shall make every effort to resolve amicably by direct informal negotiations any disagreement or dispute arising between them under or in connection with the contract.

**30.2** If, after thirty days from the commencement of such informal negotiations, the PURCHASER and the SELLER have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanism as specified hereunder.

**30.3 Legal Construction**

The Contract shall be, in all respects be construed and operated as an Indian Contract and in accordance with Indian Laws as in force for the time being and is subject to and referred to the Court of Law situated within Union Territory of New Delhi.

**30.4 Arbitration**

All disputes, controversies, or claims between the parties (except in matters where the decision of the Engineer-in-Charge is deemed to be final and binding) which cannot be mutually resolved within a reasonable time shall be referred to Arbitration by a sole arbitrator.

The PURCHASER (GAIL (India) Limited) shall suggest a panel of three independent and distinguished persons to the Seller to select any one among them to act as the sole Arbitrator.

In the event of failure of the Seller to select the Sole Arbitrator within 30 days from the receipt of the communication suggesting the panel of arbitrators, the right of selection of Sole Arbitrator by the other party shall stand forfeited and the PURCHASER shall have discretion to proceed with the appointment of the Sole Arbitrator. The decision of the PURCHASER on the appointment of Sole Arbitrator shall be final and binding on the parties.



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The award of the Sole Arbitrator shall be final and binding on the parties and unless directed/awarded otherwise by the Sole Arbitrator, the cost of arbitration proceedings shall be shared equally by the parties. The arbitration proceeding shall be in English language and the venue shall be at New Delhi, India.

Subject to the above, the provisions of (Indian) Arbitration & Conciliation Act, 1996 and the rules framed thereunder shall be applicable. All matters relating to this contract are subject to the exclusive jurisdiction of the Courts situated in the State of Delhi (India).

Seller may please note that the Arbitration & Conciliation Act 1996 was enacted by the Indian Parliament and is based on United Nations Commission on International Trade Law (UNCITRAL model law), which were prepared after extensive consultation with Arbitral Institutions and centers of International Commercial Arbitration. The United Nations General Assembly vide resolution 31/98 adopted the UNCITRAL Arbitration rules on 15 December 1996.

The WORK under the CONTRACT shall, however, continue during the Arbitration proceedings and no payment due or payable to the Seller shall be withheld on account of such proceedings.

- 30.5 GAIL (India) Limited has framed the conciliation rules 2010 in conformity with supplementary to Part – III of the Indian Arbitration and conciliation act 1986 for speedier, cost effective and amicable settlement of disputes through conciliation. A copy of the said rules made available on GAIL's web site [www.gailonline.com](http://www.gailonline.com) for reference. Unless otherwise specified. The matters where decision of the Engineer-in-Charge is deemed to be final and binding as provided in the Agreement and the issues/ disputes which can not be mutually resolved within a reasonable time, all disputes shall be settled in accordance with Conciliation Rules 2010.
- 30.6 Any disputes(s)/difference(s)/issue(s) of any kind whatsoever between/ amongst the Parties arising under/out of/in connection with this contract shall be settled in accordance with the afore said rules.
- 30.7 In case of any disputes(s)/difference(s)/issue(s), a Party shall notify the other Party (ies) in writing about such a disputes(s) / difference(s) / issue(s) between b / amongst the Parties and the such a Party wishes to refer the disputes(s)/difference(s)/issue(s) Conciliation such invitation for Conciliation shall contain sufficient information as to the disputes(s)/difference(s)/issue(s) to enable the other Party (ies) to be fully informed as to the nature of the disputes(s)/difference(s)/issue(s), the amount of monetary claim, if any, and cause(s) of action.
- 30.8 Conciliation proceedings commence when the other Party (ies) accept(s) the invitation to conciliate and confirmed in writing. If the other Party (ies) reject(s) the invitation, there will be no conciliation proceeding.
- 30.9 If the Party initiating conciliation does not receive a reply within thirty days from the date on which he/she send the invitation, or within such other period of time as specified in the invitation. He/she may elect to treat this as a rejection of the invitation to conciliation. If he/she so elect, he/she shall inform the other Party(ies) accordingly.
- 30.10 Where invitation for Conciliation has been furnished, the parties shall attempt to settle such disputes(s) amicably under part-III of the Indian Arbitration and Conciliation Act. 1996 and GAIL (India) Limited Conciliation Rules, 2010. It would be only after exhausting the option of Conciliation as an Alternate Disputes Resolution Mechanism that the parties hereto shall go for Arbitration. For the purpose of this clause. The option of 'Conciliation' shall be deemed to have been exhausted even in case of rejection of 'Conciliation' by any of the Parties.
- 30.11 The cost of Conciliation proceeding including but not limited to fees for Conciliation(s), Airfare, Local Transport, Accommodation, Cost towards conference facility etc. shall be borne by the parties equally.
- 30.12 The Parties shall freeze claim(s) of interest, if any and shall not claim the same during the pendency of Conciliation proceeding. The Settlement Agreement, as and when reached/agreed upon, shall be signed between the Parties and Conciliation proceedings shall stand terminated on the date Settlement Agreement.

### **31 Governing Language**

31.1 The Contract shall be written in English language as specified by the PURCHASER/ in the Instruction to Bidders. All literature, correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in English language. Printed literature in other language shall only be considered, if it is accompanied by an English translation. For the purposes of interpretation, English translation shall govern and be binding on all parties.

### **32 Notices**

- 32.1 Any notice given by one party to the other pursuant to the Contract shall be sent in writing or by telegram or fax, telex/cable confirmed in writing.
- 32.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

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**33 Taxes & Duties**

- 33.1 A foreign Seller shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the PURCHASER's country.
- 33.2 A domestic Seller shall be entirely responsible for all taxes, duties, license fees etc. incurred until the delivery of the contracted goods to the PURCHASER. However, Sales Tax and Excise duty on finished products shall be reimbursed by PURCHASER.
- 33.3 Customs duty payable in India for imported goods ordered by PURCHASER on foreign Seller shall be borne and paid by PURCHASER.
- 33.4 Any income tax payable in respect of supervisory services rendered by Seller under the Contract shall be as per the Indian Income Tax Act and shall be borne by SELLER. It is upto the bidder/seller to ascertain the amount of these taxes and to include them in his bid price.

**34 Books & Records**

- 34.1 SELLER shall maintain adequate books and records in connection with Contract and shall make them available for inspection and audit by PURCHASER or their authorized agents or representatives during the terms of Contract until expiry of the performance guarantee. Fixed price (lumpsum or unit price) Contract will not be subject to audit as to cost except for cost reimbursable items, such as escalation and termination claims, transportation and comparable requirements.

**35 Permits & Certificates**

- 35.1 SELLER shall procure, at his expense, all necessary permits, certificates and licenses required by virtue of all applicable laws, regulations, ordinances and other rules in effect at the place where any of the work is to be performed, and SELLER further agrees to hold PURCHASER harmless from liability or penalty which might be imposed by reason of any asserted or established violation of such laws, regulations, ordinances or other rules. PURCHASER will provide necessary permits for SELLER's personnel to undertake any work in India in connection with Contract.

**36 General**

- 36.1 In the event that terms and conditions stipulated in the General Conditions of Contract should deviate from terms and conditions stipulated in the Contract, the latter shall prevail.
- 36.2 Losses due to non-compliance of Instructions  
Losses or damages occurring to the PURCHASER owing to the SELLER's failure to adhere to any of the instructions given by the PURCHASER in connection with the contract execution shall be recoverable from the SELLER.
- 36.3 Recovery of sums due  
All costs, damages or expenses which the PURCHASER may have paid, for which under the CONTRACT SELLER is liable, may be recovered by the PURCHASER (he is hereby irrevocably authorized to do so) from any money due to or becoming due to the SELLER under this Contract or other Contracts and/or may be recovered by action at law or otherwise. If the same due to the SELLER be not sufficient to recover the recoverable amount, the SELLER shall pay to the PURCHASER, on demand, the balance amount.
- 36.4 Payments, etc. not to affect rights of the PURCHASER  
No sum paid on account by the PURCHASER nor any extension of the date for completion granted by the PURCHASER shall affect or prejudice the rights of the PURCHASER against the SELLER or relieve the SELLER of his obligation for the due fulfillment of the CONTRACT.
- 36.5 Cut-off Dates  
No claims or correspondence on this Contract shall be entertained by the PURCHASER after 90 days after expiry of the performance guarantee (from the date of final extension, if any)
- 36.6 Paragraph heading  
The paragraph heading in these conditions shall not affect the construction thereof.

**37 Import License**

- 31.7 No import license is required for the imports covered under this document.

**38 FALL CLAUSE**

**NOT APPLICABLE**

**39 Publicity & Advertising**

Signature of Bidder:

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39.1 Seller shall not without the written permission of PURCHASER/Consultant make a reference to PURCHASER/Consultant or any Company affiliated with PURCHASER/Consultant or to the destination or the description of goods or services supplied under the contract in any publication, publicity or advertising media

**40 Repeat Order**

40.1 PURCHASER reserves the right, within 6 months of order to place repeat order upto 50% of the total order qty. without any change in unit price or other terms and conditions.

**41 Limitation of Liability**

41.1 Notwithstanding anything contrary contained herein, the aggregate total liability of Seller under the Agreement or otherwise shall be limited to 100% of Agreement / Order price. However, neither party shall be liable to the other party for any indirect and consequential damages, loss of profits or loss of production.

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# Section III

## Special Conditions of Contract

### CONTENTS

1. DELIVERY SCHEDULE
2. PERFORMANCE BANK GUARANTEE (PG/CPBG/PBG):
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5. GUARANTEE/WARRANTY:
6. INCOME TAX AND TDS (TAX DEDUCTED AT SOURCE) FOR THE INSTALLATION AND COMMISSIONING AND AMC CHARGES (PART Y & Z OF SOR) ONLY
7. SERVICE TAX FOR THE INSTALLATION AND COMMISSIONING AND AMC CHARGES (PART Y & Z OF SOR) ONLY
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12. COMPLIANCE TO HEALTH, SAFETY & ENVIRONMENT REQUIREMENT

### **Special Conditions of Contract (SCC)**

The Special Condition of Contract shall be read in conjunction with the General Conditions of Contract, Schedule of rates, specifications, drawings and any other documents forming part of tender, wherever the context so requires.

Where any portion of the General Condition of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, unless a different intention appears, the provisions of the Special Conditions of Contract shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy, or variations, prevail. Similarly, provisions of Volume -2 (Technical) shall over-ride any such provisions mentioned in SCC & GCC.

The total contract has three parts namely:

- A. Up-gradation of EPABX Systems along with all mandatory and commissioning spares
- B. Installation and Commissioning of the supplied system
- C. Post warrantee non-comprehensive Annual Maintenance Contract for Three Years.

**Note: The bidder has to quote for all the three parts. If any of the part is not quoted the bid will be rejected**

#### **1. DELIVERY SCHEDULE**

##### **Supply Part:**

04 months from the date of FOA / Purchase order whoever is earlier.  
(Date of LR/GR shall considered as date of delivery)

##### **Installation, Commissioning & testing**

The bidder shall complete the installation, commissioning of the supplied equipment within 02 months from the date of intimation of site clearance from GAIL.

GAIL will intimate bidders for site clearance within 15 days of inspection and acceptance of supply part.

#### **2 PERFORMANCE BANK GUARANTEE (PG/CPBG/PBG):**

The bidder shall submit a "performance bank guarantee" for successful and trouble free operation of all the systems for a period of one year from the date of handing over of the system to GAIL. Please refer Clause 39 of ITB

There will be 2 CPBG. CPBG #1 FOR Supply Installation & commissioning and CPBG #2 for AMC part

CPBG#1 of 10% of value of supply + I&C part will be submitted within 15 days of award of purchase order, and will be released after warranty period, against submission of CPBG#2.

CPBG#2 of 10% of value of AMC part will be submitted at least 15 days before expiry of warranty period, and will be released after successful completion of AMC period duly certified by EIC.

CPBG#2 will be valid till 90 beyond the period of AMC.

### **3 TERMS AND MODE OF PAYMENT**

#### **For Supply:**

GAIL shall release 70% payment with 100% taxes and duties after accepting material at site.

Balance 25% payment of the material shall be released within 30 days after installation, testing and commissioning, trial run and acceptance duly certified by Engineer-In-Charge (EIC) through e-banking.

Remaining 5% of after completing decommissioning, dismantling and removal of buy back items from GAIL's premises.

#### **For Installation and commissioning:**

100% payment toward installation and commissioning shall be made within 30 days after installation, testing and commissioning, , trial run and acceptance duly certified by Engineer-In-Charge (EIC).

#### **For post warranty comprehensive AMC:**

The payment will be made on running bills raised every quarter ( 3 months) of service.

### **4 PRICE REDUCTION SCHEDULE:**

In case of delay in delivery of materials beyond contractually agreed delivery schedule, price reduction schedule will be applicable @0.5% of material (supply portion) value per week of delay or part thereof, subject to ceiling of 5% (FIVE PERCENT) of the total order value. For details, please refer GCC-Goods.

In case of delay in Installation and Commissioning beyond contractually agreed Installation and Commissioning schedule, price reduction schedule will be applicable @0.5% of Installation and Commissioning value per week of delay or part thereof, subject to ceiling of 5% (FIVE PERCENT) of the total order value. For details, please refer GCC-Goods.

However the total price reduction against delay in delivery of materials as well as delay in Installation and Commissioning will be limited to ceiling of 5% (FIVE PERCENT) of the total order value.

### **5 Guarantee/Warranty:**

Vendor shall provide warranty of the complete system hardware, software and performance as a whole inclusive of bought out items. The warranty period shall be 24 months from the date of successful completion of SAT. All the parts / components found defective during the warranty period shall be replaced by bidder.

### **6 INCOME TAX AND TDS (TAX DEDUCTED AT SOURCE) for the installation and commissioning and AMC charges (Part Y & Z of SOR) only**

1. As per the Govt. of India income tax rules, TDS deduction shall be applicable as given below for the installation and commissioning and AMC charges (Part Y & Z of SOR)

The bidder will have to bear all income tax liability, both Corporate as well as for his personnel. GAIL shall deduct Income Tax at Source (TDS) as per applicable Indian law from the fees payable to the Vendor/seller for the services rendered and remit the net amount to the Vendor/seller. GAIL shall deposit the income tax deducted with the Indian revenue Department. GAIL shall issue necessary Tax Deducted at Source (TDS Certificate) to the

Vendor/seller. Claim of such amount may be obtained by the bidder/ supplier/service provider in their own country based on this issued TDS certificate.

In case PAN ( Permanent Account Number) is not submitted by bidder, 20% TDS shall be deducted from the invoice, and no TDS certificate will be issued by GAIL for the deducted amount. Hence bidder to mention the PAN no. in the offer.

**7 SERVICE TAX for the installation and commissioning and AMC charges (Part Y & Z of SOR) only**

The responsibility of compliance of provisions of Service Tax law shall be of the bidder. The quoted rate should be inclusive of all taxes duties, service tax and education cess thereon. However, the applicable amount of Service Tax and cess thereon shall be paid on submission of documentary evidence / invoices issued under rule 4A of service tax rules. Even in the event of statutory variation of Service Tax and cess thereon within the contract period on account of variation, the same shall be paid by GAIL.

The bidder shall also furnish copy of service tax registration along with the offer, wherever service tax is applicable. Alternatively bidder shall furnish the same within one month from the date of issue of letter of award or along with first invoice. The bidder liable to pay service tax for the services rendered to GAIL shall specifically mention the service tax registration number in their invoice. Further, the amount and rate of service tax shall be separately mentioned in the invoices. The Service Provider shall submit proper Invoice as required under the Service Tax Law. At present Rule 4A of Service Tax Rules provides the relevant provisions for issuance of proper Invoice by the service providers. In case any other particulars of GAIL, Pata as receiver of services are required to be mentioned, if any, under Service Tax law and / or CENVAT Credit Rules, on the date of providing services to GAIL, the same shall also be mentioned on the Invoice. As per exiting Rule 4A, bidder shall raise a serially numbered invoice stating the following particulars on the face of the invoice:

- (a) Name, address and registration number of service provider,
- (b) Name and address of GAIL, Pata as receiver of service,
- (c) Description, classification and value of taxable services
- (d) The amount of services tax and cess thereon both in figure and words.

It shall be the responsibility of the bidder to pass on the CENVAT Credit benefit to GAIL, wherever applicable. In case GAIL loses any benefit/amount of CENVAT Credit, due to any fault of the bidder (e.g. non submission of proper invoice timely), which could otherwise have been availed by GAIL as per Rules, the same shall be recoverable from the bidder / not paid to the bidder.

The bid rates should be inclusive of all taxes & duties applicable during the contract period except Service Tax and Education Cess thereon. Service Tax and Education Cess thereon to be quoted separately in percentage as well as its total amount in SOR and same shall be reimbursed wherever service provider is liable to pay service tax on submission of documentary evidence/invoice(s) as per Rule 4A of Service Tax Rule, 1994.

**However, where GAIL as a service receiver is liable to pay service tax, in such case also bidder shall quote applicable Service Tax and Education Cess thereon both in percentage as well as its total amount in SOR and shall also submit proper invoice as per Rule 4A of Service Tax Rules, 1994 in order to ascertain the amount of service tax payable by GAIL.**

- A. In case a bidder does not indicate the rate & amount of service tax in the SOR or makes any other statement (e.g. “NIL”, “Inclusive”, “Kept as Blank” etc.), their quoted price shall be considered inclusive of service tax at the rate applicable at the time of bid opening (i.e. presently @ 12.36 %) and the job shall be awarded accordingly to the L-1 bidder after reduction of the applicable service tax amount ascertained in this regard.
- B. In case a bidder indicate the rate & amount of service tax in the SOR as “**Extra at Actuals**” their quoted price shall be evaluated after loading of service tax at the rate applicable at the time of bid opening without any abatement (i.e. presently @ 12.36 %), which will be completely sole discretion of GAIL.
- C. In case the bidder quotes any other rate which is **less than prevailing rate** as per service tax rules by virtue of any abatement/ exemption then the bidder shall make note of such abatement/ exemption in SOR, else their quoted price shall be evaluated after loading of service tax at the rate applicable without any abatement (i.e. presently @ 12.36 %), at the time of bid opening instead of lower rate of service tax as quoted by the bidder, which will be completely sole discretion of GAIL. However reimbursement of service tax will be restricted to the rates as quoted by bidder in percentage as well as its total amount in SOR, and contractor shall be liable to pay differential service tax at its own to government department. During the execution of the contract, (GAIL may ask for copy of challan to ensure the payment by contractor of such differential service tax )
- D. In case, rate of service tax quoted by bidder is **higher than maximum applicable rate** as per prevailing service tax rules, it shall be restricted to the prevailing maximum rate (i.e. presently @ 12.36 %), for reimbursement purpose, and in the same line for evaluation purpose also the prevailing maximum rate (i.e. presently @ 12.36 %) shall only be considered. The Higher rate of service tax quoted by bidder as stated above in percentage as well as its total amount in SOR shall be termed as void, and not be considered in any case, which will be completely sole discretion of GAIL.

The bidder who is exempted to pay Service Tax and Education Cess thereon due to annual turnover at the time of bid submission and later on if it becomes applicable, evaluation shall be made based on information available in their bid. Further, after placement of order/contract, if Service Tax and Education Cess thereon due to increase in annual turnover become leviable, GAIL shall not reimburse Service Tax & Education Cess thereon and contractor shall be liable to pay Service Tax & Education Cess thereon to Government department during the execution of the contract.

The bidder shall indicate in its bid the Service Tax Registration no. and in case the Service Tax registration no. is not available, the bidder will give confirmation for obtaining registration with a copy of application for registration.

The Service Provider shall specifically mention the Service Tax Registration No. in their Invoice(s). Further, the amount and rate of Service Tax shall be separately and distinctly specified in the Invoice(s). In addition to above invoice / bill shall be serially numbered and should also specify following:

- (i) The name, address and registration number of the service provider
- (ii) The name and address of the recipient of the taxable service
- (iii) Description, classification and value of taxable service provided and
- (iv) The service tax payable on such services



## **8 SPARE PHILOSOPHY**

- a. Bidder should supply all mandatory spares as mentioned in BOM along with the main item.
- b. Supply of all or any spares deemed to be required for smooth commissioning of the system within the specified project schedule will be in the scope of the vendor
- c. Bidder should submit technology & service support letter of installed system for 5 years from the date of PO on company letter head. If the vendor is an authorized or legal representative of any Principle the support letter from Principal is also required.
- d. Further the bidder to provide the price list of O&M spares for 2 years Post Warranty trouble free operation along with the price bid separately for reference and records only. This will not be evaluated for comparison purpose.

## **9 GUIDELINES FOR IMPOSITION OF PUNITIVE FINES FOR SERVICE PORTION:**

Punitive fines on contractors are imposed for repetitive violation of safety rules & regulations during execution of jobs. Objective of punitive fines is to work as deterrent for contractors in violation of safety rules & regulation and to improve safety atmosphere in general at all site.

Proposed guidelines for imposition are described below:

1. For first time violation of safety rules & regulation by any contractor, HOD (F&S) will issue a warning letter to contractor with intimation to OIC of work center and EIC.
2. In case of second time violation of safety rules & regulations by same contractor, OIC will call contractor in person and will have a meeting to discuss reason for repetitive violation along with EIC and HOD (F&S). A warning letter will also be issued by EIC to contractor.
3. In case of further violation, punitive fines will be imposed on contractor. Amount of fine will be decided as per severity of violation of safety. However, minimum fine would be Rs.10,000/- and in multiple of Rs.10,000/-, thereafter. This will be limited to 5% of contract value, as maximum cumulative penalty.
4. This practice of punitive fines is to be implemented across all Gail sites on those contracts having value of minimum Rs.10 Lacs and above or any other contractor for recurring operation or maintenance (AMC), irrespective of value.
5. Practice of punitive fines will be applicable for projects sites also and would be over and above the deduction made by M/s EIL for safety violation from running bills

## **10 . OTHER TECHNICAL REQUIREMENTS**

1. Contractor shall be responsible for the complete supply installation/ erection, testing, commissioning & test run of the system in all respect before date of completion of work order.
2. The quoted prices shall include supply, erection, installation, testing, test run, commissioning, training, FAT, including the related civil, mechanical, structural, cabling, documentation, insurance, taxes, overloads, duties etc, necessary for providing the complete facilities and services as described in the tender document.
3. Manufacture / procurement & supply of equipment and associated items as per the Technical specifications of the Bid document.
4. The material, design, workmanship shall satisfy the applicable standards, specifications contained herein and codes referred to. Wherever, the technical specifications stipulate requirements in addition

to those contained in the standard codes and specifications, those additional requirements shall also be satisfied.

5. Where, it is mentioned in the specification that the contractor shall perform certain work for completing the job in totality, it is understood that the contractor shall do so at his own cost and contract price shall be deemed to have included cost of such performances and provisions, so mentioned.

6. Contractor shall be totally responsible for the offered equipment/ materials. In the event of any modifications in the specifications to meet the total requirement included in the bid document are warranted, the Bidder shall clearly spell out all such requirements at the time of submission of his offer in the Deviation (D) form.

It shall be expressly understood that the equipment specifications as given are envisaged to meet the overall design objectives.

7. All equipment, proposed to be used, must have been in successful operation in the field for a minimum period of two (2) years.
8. Contractor is deemed to have understood the existing infrastructure like: space, input power supply, earthing etc of GAIL site, wherein the equipment are to be installed, by visiting the sites and collecting first hand information before submission of the offer. Incase of any doubt, the clarification may be taken from the owner before submission of the offer.
9. Contractor shall bring all instruments / test equipments as deemed necessary for the implementation of the job. For utilizing the GAIL's equipment (if available at site) prior consent shall be obtained from GAIL by the contractor in advance.
10. Owner reserves the right to modify the system requirements till such time the system is ready for final acceptance. Contractor shall undertake to meet the revised requirements without any charges to the owner, provided no additional equipment is required. In case any additional equipment is required for fulfilling the revised requirements, contractor shall supply the same with owner bearing the cost of the equipment.
11. During the course of execution of the work, if any discrepancy or inconsistency, error or omission in any of the provisions of the contract is discovered which needs to be clarified, the matter shall be referred to the owner who shall give his decision in the matter and his decision shall be final and conclusive.
12. Engineer-in-charge (EIC) will be indicated at the time of award of work. Owner may depute his representative / team at work site.
13. The contractor at his own cost shall carry out, all tests in field and at factory concerning the executions of the work and supply of materials.
14. Contractor shall provide on-site warranty for the supplied system and its performance for the period of two (2) years and technical & AMC service for 3 years after the warranty period in accordance with the specifications as specified in General guide lines of the tender document.
15. The work is subjected to inspection at all times by the Engineer-in-charge. The contractor shall carry out all instructions given by him or his representatives during inspection and shall ensure that the work is being carried out according to the technical specifications of this tender, the technical documents and the relevant codes of practices during the performance of the work.

16. The contractor shall provide for the purpose of inspection access to the owner in the factory premises, manpower for carrying out test, test instruments, accessories, power supplies etc. at his own cost. Similar arrangements shall be made for site acceptance tests.
17. Any work not confirming to the execution drawings, specifications codes or standard engineering practices shall be rejected forthwith and the contractor shall carry out the rectification at his own cost.
18. All results of inspection and tests will be recorded in the inspection reports, Performa of which will be approved by the EIC.
19. Inspection and acceptance of the work shall not relieve the contractor from any of his responsibilities under this contract.
20. Contractor shall, within 7 days after receipt of notification of award of work, provide the complete job implementation schedule covering all functions & activities of the project like: finalizing design/engineering document, supply, installation, testing, training, test run & commissioning phases.
21. Contractor shall observe in addition to codes specified in respective specification, all national and local laws, ordinances, rules and regulations and requirements pertaining to work and shall be responsible for extra costs arising from violations of the same.
22. Various procedures and method statements to be adopted by contractor during the construction as required in the respective specifications shall be submitted to owner in due course of time for approval. No such construction activity shall commence unless approved by owner in writing.
23. Contractor shall depute an experienced / competent representative(s) at site during the execution of the project. Any instructions given to such representative(s) shall be constructed as having been given to the contractor.
24. All the expenditure for boarding, lodging, traveling, transport of material to GAIL Site, out of pocket expenses etc. shall be borne by the supplier and no payment apart from the quoted price in the SOR will be paid by GAIL.
25. Vendors must quote their technical and price bids strictly as per the Schedule of Rates (SOR) only. Any modification to this SOR shall be liable for cancellation of the bid.
26. The contractor shall carry out required supervision and inspection as per Quality Assurance Plan and furnish all assistance required by the owner in carrying out inspection work during this phase. The owner will have engineers, inspectors or other authorized representatives present, who are to have free access to the work at all times.
27. Notwithstanding the provisions contained in standard specification, upon completion of work, the Contractor shall complete all the related drawings to the "AS BUILT" stage (including all contractor/sub-contractor drawings for bought out items) and provide the owner the following:
  - a) One complete sets in the form of hand bound volumes of the manufacturer's data book for all the equipment, instruments etc. Equipment data shall include, as a minimum requirement, the equipment description, operating principles, trouble shooting tips, block diagrams, construction details, part lists and priced purchase orders including those of major sub-contractors and suppliers.
  - b) One bound copy each of the spare parts data book.
28. The order in which the work shall be carried out shall be subjected to the approval of EIC and shall be so as to suit the detailed method of construction adopted by the contractor, as well as the agreed joint

program. The work shall be carried out in a manner so as to enable the other contractors, if any to work concurrently.

29. The contractor shall establish document and maintain an effective Quality Assurance System to ensure that the work is performed in a planned, systematic manner to the best quality standards and properly documented to provide confidence that materials supplied and/or work executed by him conform to the applicable specifications and all the requirements of the contract document, and the work executed shall perform satisfactorily for the entire period of its life.
30. The owner shall claim all the costs, damages or expenses that the owner may have paid, for which under the contract the contractor is liable. All such claims shall be billed by the owner to the contractor, regularly as & when they fall due. Such bills shall be supported by appropriate & certified vouchers or explanations, to enable the contractor to properly identify such claims. Such claims shall be paid by the contractor within 15 days of the receipt of corresponding bills and if not paid by the contractor within the said period, the owner may then deduct the amount, from any amount due or becoming due by the owner to the contractor under the contract may be recovered by actions of law or otherwise, if the contractor fails to satisfy the owner such claims.
31. Contractor shall be solely responsible for making available for executing the work, all-requisite construction equipment, special aids, tools, tackles and testing equipment and appliances. Such construction equipment etc. shall be subject to examination by the owner and approval for the same being. Any discrepancies pointed out by the GAIL shall be immediately got rectified, repaired or the equipment replaced altogether, by the contractor.

## **11. SAFEGUARDING OF EXISTING UTILITIES AND SERVICES**

Existing, cables, wires, equipments, fixtures etc encountered in the course of the works shall be guarded against any accidental damage by the Contractor at his own cost, to avoid disruption of any services critical to Plant operation.

Should any damage be done by the Contractor to any mains, pipes, cables, lines or ,building/ structure (whether above or below ground etc.,) whether or not shown on the drawings the Contractor must make good or bear the cost of making good the same without delay to the satisfaction of the Engineer-in-Charge.

## **12. COMPLIANCE TO HEALTH, SAFETY & ENVIRONMENT REQUIREMENT**

The contractor shall follow all statutory requirements given by state and/or local municipal bodies enforced from time to time in respect of health of workers and environment of work places and the areas affected by factories/work shops. In addition, contractor shall also follow all safety rules & regulation at all work places.

--XX--

# Section V

## FORMS & FORMATS

### FORMS & FORMATS

SR. NO.	FORM NO.	DESCRIPTION
1.	F-1	ACKNOWLEDGEMENT CUM CONSENT LETTER
2.	F-2	BIDDER'S GENERAL INFORMATION
3.	F-3	BIDDER'S QUERIES FOR PRE BID MEETING
4.	F-4	BID FORM
5.	F-5	CHECK LIST
6.	F-6	LETTER OF AUTHORITY
7.	F-7	NO DEVIATION CONFIRMATION
8.	F-8	CERTIFICATE
9.	<b>F-9</b>	<b>NOT APPLICABLE</b>
10.	<b>F- 10</b>	<b>NOT APPLICABLE</b>
11.	F-11	FORMAT FOR E-PAYMENTS (Indian Bidders)
12.	F-12	PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT [EMD] / BID SECURITY
13.		INSTRUCTIONS FOR FURNISHING BID- GUARANTEE BANK GUARANTEE
14.	F-12(A)	FORMAT FOR LETTER OF CREDIT FOR BID SECURITY
15.	F-13	PROFORMA OF CONTRACT PERFORMANCE GUARANTEE
16.		INSTRUCTIONS FOR FURNISHING CONTRACT PERFORMANCE GUARANTEE
17.	F-14 A	<b>NOT APPLICABLE</b>
18.	F-14(B)	AGREED TERMS AND CONDITIONS
19.	F-15	INTEGRITY PACT
20.	f-16	CERTIFICATE FOR LOGISTIC SUPPORT

Note: Above Formats/Forms duly filled-in along with its enclosures must be essentially furnished by bidders before/along with bid for Evaluation of Bid, failing which bid of bidder may not be considered for further evaluation.

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED,  
PATA (UP) INDIA**

**Acknowledgement cum consent letter**

**F-1**

(Within 7 days of receipt of Bidding document, Bidder shall acknowledge the receipt and confirm their intention to Bid against this tender through e-mail to [pp01959@gail.co.in](mailto:pp01959@gail.co.in) or FAX with duly filled-up this Format. In case of no reply or No Offer, It will be considered that bidder is not interested and No Further Tender will be issued in future)

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India) Attn: Mr. Paul Philip  
FAX: +91 5683 282446

Dear Sir,

We hereby acknowledge receipt of a complete set of bidding document along with enclosures for subject item/work.

We undertake that the contents of the above bidding document shall be kept confidential and further that the drawings, specifications and documents shall not be transferred and that the said documents are to be used only for the purpose for which they are intended.

A) We intend to bid as requested for the subject item/work and furnish following details with respect to our quoting office:

(i) Postal Address : .....  
.....  
(ii) Telephone Number : .....  
(iii) Telefax Number : .....  
(iv) Contact Person : .....  
(v) E-mail Address : .....  
(vi) Website : .....

B) Details of Contact person:

(i) Postal Address : .....  
.....  
(ii) Telephone Number : .....  
(iii) Fax Number : .....  
(iv) Contact Person : .....  
(v) E-mail Address : .....  
(vi) Mobile No.- : .....

C) We are unable to bid for the reasons given below and we are returning back the entire set of bidding documents.

- ☐ The item/service does not fall in our product/servicing range
- ☐ We do not meet BEC (Bid Evaluation Criteria) as specified in tender
- ☐ We cannot meet the technical specifications as specified in tender
- ☐ There is an order overbooking
- ☐ We need some more time for submission of offer and hence request for extension of bid submission date
- ☐ Any other reason (please specify)

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Agency's Name	:	.....	Signature	:	.....
Date	:	.....	Name	:	.....
Seal/Stamp	:	.....	Designation	:	.....

Signature of Bidder:

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED,  
PATA (UP) INDIA**

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**BIDDER'S GENERAL INFORMATION**

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**F-2**

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India) Attn: Mr. Paul Philip  
FAX: +91 5683 282446

- 1 Bidder Name: \_\_\_\_\_
- 2 Number of Years in Operation: \_\_\_\_\_
- 3 Registered Address: \_\_\_\_\_  
\_\_\_\_\_
- 4 Operation Address  
if different from above: \_\_\_\_\_  
\_\_\_\_\_
- 5 Telephone Number \_\_\_\_\_  
(Country Code) (Area Code) (Telephone Number)  
Mobile No./Direct No. \_\_\_\_\_
- 6 E-mail address & Web Site \_\_\_\_\_
- 7 Tele fax Number \_\_\_\_\_  
(Country Code) (Area Code) (Telephone Number)
- 8 ISO Certification, if any {If yes, please furnish details}
- 9 Indicate Port of Shipment against this tender:  
(Only overseas vendors)
- 10 Indicate shipping detail(s) i.e. weight (net and gross) & volume of the consignment  
separately for each item quoted in price schedule.

(SIGNATURE OF BIDDER WITH SEAL)

Signature of Bidder:



Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

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**BIDDER'S QUERIES FOR PRE BID MEETING**

**F-3**

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India)  
FAX: +91 5683 282446

Attn: Mr. Paul Philip

SL. NO.	REFERENCE OF BIDDING DOCUMENT				BIDDER'S QUERY	GAIL'S REPLY
	SEC. NO.	Page No.	Clause No.	Subject		

**NOTE:** The Pre-Bid Queries may be sent by fax to fax numbers 91-11-26185941 ext. 5088#or +91 5683 282446 and also by e-mail to [pp01959@gail.co.in](mailto:pp01959@gail.co.in) or [krmrao@gail.co.in](mailto:krmrao@gail.co.in) before due date for receipt of Bidder's queries.

**SIGNATURE OF BIDDER:**\_\_\_\_\_ **NAME OF BIDDER** : \_\_\_\_\_

Signature of Bidder:

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

**BID FORM**

**F-4**

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India)  
FAX: +91 5683 282446

Attn: Mr. Paul Philip

Dear Sir,

After examining/reviewing the Bidding Documents for -----including technical specifications, drawings, General and Special Purchase Conditions and schedule of rates etc. the receipt of which is hereby duly acknowledged, we, the undersigned, pleased to offer to execute the whole of the Job of ..... , the said Bid Documents, including Addenda Nos. \_\_\_\_\_.

We confirm that this bid is valid for a period of Four (4) months from the date of opening of Techno-Commercial Bid, and it shall remain binding upon us and may be accepted by any time before the expiration of that period.

If our bid is accepted, we will provide the performance guarantee equal to 10% (ten per cent) of the Contract Price, for the due performance with in fifteen days of such award.

Until a final Purchase Order/Agreement is prepared, the bid together with your written acceptance thereof in your notification of award shall constitute a binding Agreement between us.

We understand that Bid Document is not exhaustive and any action and activity not mentioned in Bid Documents but may be inferred to be included to meet the intend of the Bid Documents shall be deemed to be mentioned in Bid Documents unless otherwise specifically excluded and we confirm to perform for fulfillment of Agreement and completeness of the Work in all respects within the time frame and agreed price.

We understand that you are not bound to accept the lowest priced or any bid that you may receive.

SEAL AND SIGNATURE

DATE:

Duly authorized to sign bid for and on behalf of M/s \_\_\_\_\_

(SIGNATURE OF WITNESS)

WITNESS NAME:

ADDRESS:

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

### CHECK LIST OF DOCUMENTS

F-5

[BIDDERS ARE ESSENTIALLY REQUIRED TO FILL –UP THIS CHECK LIST BEFORE SEALING AND UPLOADING/FORWARDING THE BID TO AVOID REJECTION, DUE TO NON- COMPLIANCE AND NON-SUBMISSION OF DOCUMENTS. THIS FORMAT MUST BE SUBMITTED ALONGWITH YOUR OFFER DULY SIGNED & STAMPED]

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India) Attn: Mr. Paul Philip  
FAX: +91 5683 282446

We are enclosing the following documents DULY INDEXED WITH PAGE NO. OF OFFER” in un-price bid (Part-I) along with confirmation as per tender requirement:

- 1) EMD Details: DD [ ] BG [ ] LC [ ]  
No... Date..... Amount- Rs.....Validity.....
- 2) Whether bidder has submitted scanned documents of all relevant documents in support of BEC (Bid Evaluation Criteria) and submitted thru' e-tender [Page- ]
- 3) Whether tender fee of requisite amount has been forwarded to GAIL, Pata before attending pre-bid meeting/within 7 days of online bid submission and copy uploaded alongwith offer. [YES/NO]
- 4) Whether EMD/bid Security of requisite amount has been forwarded to GAIL, Pata before of online bid submission, which must reach GAIL Pata within 7 days of bid closing date and copy uploaded alongwith offer. [YES/NO]
- 5) If the tender document is downloaded from web site, an undertaking on letter head has been submitted confirming that content of tender document is not modified/alterd, as per format enclosed. [Page- ]
- 6) Blank Price Schedule (i.e. without mentioning prices) duly signed submitted alongwith “UN-PRICED BID” [Page- ]
- 7) No Deviation Certificate [Page- ]
- 8) Power of Attorney in the name of the signatory to the Bidding Document [Page- ]
- 9) Duly filled-in and signed Agreed Terms and Conditions [Page- ]
- 10) Copy of Tender Documents along with addendum/corrigendum duly signed and sealed on each page, in token of confirmation of acceptance of all terms and conditions of the tender. [Page- ]
- 11) Confirm bid is submitted Under Two Bid System [YES/NO]
- 12) Bidder has signed and stamped the Volume-II/II of tender i.e. technical specification & scope of supply (duly signed with company seal affixed) and submitted with un-priced bid. [YES/NO]
- 13) Domestic Bidders only: Whether Bidder will submit CENVAT invoice for the full amount of Excise duty quoted in bid to enable GAIL to claim CENVAT benefit. [YES/NO]
- 14) Whether Bidder has signed the 'INTEGRITY PACT' format on a plain paper and submitted with the un-priced bid (to be signed on all pages and last page should carry signature of witnesses) [YES/NO]
- 15) Bidder confirms that they have submitted their bid (priced and un-priced) thru' e-tender mode only and have not sent the bid in physical form. Only the EMD and TENDER FEE and POA have been submitted in physical form and scanned copy of the EMD and TENDER FEE has been submitted thru e-tender. Further, if EMD and TENDER FEE (wherever applicable) is not received within 7 days of opening of un-priced bid, then the bid shall be rejected. [YES/NO]
- 16) Any other documents required as the ITB, GCC, Technical Questionnaire, SCC, Technical Specification, etc of tender document
  - i) [List out all such requirement and submissions] [Page- ]
  - ii) ----- [Page- ]

(SEAL AND SIGNATURE OF BIDDER)

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

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**LETTER OF AUTHORITY**

**PROFORMA FOR LETTER OF AUTHORITY FOR ATTENDING BID OPENING AND SUBSEQUENT NEGOTIATIONS/CONFERENCES**

Bidder Ref:.....

Date:

---

To,  
GAIL (India) Limited,  
POLYMER BHAWAN  
PATA, DISTT- AURAIYA (UP)  
INDIA - 206241

SUB: **TENDER NO GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
**UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

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Dear Sir,

With reference to subject tender We \_\_\_\_\_ hereby authorize following representative(s) to attend un-priced bid opening and price bid opening.

Name & Designation \_\_\_\_\_ Signature \_\_\_\_\_.

Yours faithfully,

Signature

Name & Designation

For and on behalf of

Note: This letter of authority should be on the letterhead of the bidder and should be signed by a person competent and having the power of attorney.

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP)  
INDIA**

**F-7**

**NO DEVIATION CONFIRMATION**

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India)  
FAX: +91 5683 282446

Attn: Mr. Paul Philip

Dear Sir,

We understand that any deviation/exception in any form may result in rejection of bid. We, therefore, certify that we have not taken any exceptions/deviations anywhere in the bid against subject tender and we agree that if any deviation/exception is mentioned or noticed, our bid may be rejected.

**(SEAL AND SIGNATURE OF BIDDER)**

**F-8**

**CERTIFICATE**

To,  
Sr. Manager (C&P)  
GAIL (India) Ltd.  
Pata (India)  
FAX: +91 5683 282446

Attn: Mr. Paul Philip

Dear Sir,

If we become a successful bidder and pursuant to the provisions of the Bidding Documents award is given to us for supply of -----the following certificate shall be automatically enforceable:

"We agree and acknowledge that the Employer is entering into the Agreement solely on its own behalf and not on behalf of any other person or entity. In particular, it is expressly understood and agreed that the Government of India is not a party to the Agreement and has no liabilities, obligations or rights there under. It is expressly understood and agreed that the Employer is authorised to enter into Agreement, solely on its own behalf under the applicable laws of India. We expressly agree, acknowledge and understand that the Employer is not an agent, representative or delegate of the Government of India. It is further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of the Agreement. Accordingly, we hereby expressly waive, release and forego any and all actions or claims, including cross claims, VIP claims or counter claims against the Government of India arising out of the Agreement and covenants not to sue to Government of India as to any manner, claim, cause of action or things whatsoever arising of or under the Agreement."

Seal and Signature of Bidder

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

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F-11

**ANY PAYMENT FROM GAIL PATA INCLUDING RETURN OF EMD WILL BE ONLY THROUGH E BANKING  
HENCE THE BIDDER HAS TO COMPULSORILY FILL UP THIS AND SUBMIT WITH THE BID**

**PARTICULARS OF VENDOR REQUIRED FOR PURPOSE OF MAKING PAYMENT THROUGH E-BANKING  
(VENDOR TO FORWARD THIS FORWARD DULY FILLED AND SIGNED IN THEIR LETTER HEAD)**

- (1) Vendor/Customer Name: \_\_\_\_\_
- (2) Vendor/Customer Code: \_\_\_\_\_
- (3) Vendor/Customer Address: \_\_\_\_\_  
\_\_\_\_\_
- (4) Vendor/Customer email id: \_\_\_\_\_
- (5) Particulars of bank accounts:
- a. Name of bank: \_\_\_\_\_
  - b. Name of branch: \_\_\_\_\_
  - c. Branch code: \_\_\_\_\_
  - d. Address: \_\_\_\_\_  
\_\_\_\_\_
  - e. Telephone no \_\_\_\_\_
  - f. Type of account ( current/saving): \_\_\_\_\_
  - g. Account number: \_\_\_\_\_
  - h. RTGS IFSC code of the bank branch: \_\_\_\_\_
  - i. NEFT IFSC code of the bank branch: \_\_\_\_\_
  - j. 9 digit MICR code : \_\_\_\_\_

I/we hereby authorize GAIL (India) Limited to release any amount due to me/us in the bank account as mentioned above .I/We hereby declared that the particulars above are correct and complete. If any transaction is delayed or lost because of incomplete or incorrect information we would not hold the GAIL (India) Limited responsibility.

\_\_\_\_\_  
(Signature of vendor/Customer)

**BANK CERTIFICATE**

**We certify that \_\_\_\_\_ has an Account no. \_\_\_\_\_ with us and we confirm that the details given above are correct as per our records.**

**BANK STAMP:**

**(Signature of the authorized officer of bank)**

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP) INDIA**

F-12

**PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT/ BID SECURITY**

(To be stamped in accordance with the Stamp Act)

Ref.....

Bank Guarantee No.....

Date.....

To

GAIL ( India )Ltd.,

Dear Sir(s),

In accordance with Letter Inviting Tender under your reference No \_\_\_\_\_  
M/s. \_\_\_\_\_ having their Registered / Head Office at  
\_\_\_\_\_ (hereinafter called the Tenderer) wish to participate in the said tender for

As an irrevocable Bank Guarantee against Earnest Money for the amount of \_\_\_\_\_ is required to be submitted by the Tenderer as a condition precedent for participation in the said tender which amount is liable to be forfeited on the happening of any contingencies mentioned in the Tender Document.

We, the \_\_\_\_\_ Bank at \_\_\_\_\_

having our Head Office \_\_\_\_\_

(Local Address) guarantee and undertake to pay immediately on demand without any recourse to the tenderers by GAIL (India) Ltd., the amount \_\_\_\_\_ without any reservation, protest, demur and recourse. Any such demand made by GAIL, shall be conclusive and binding on us irrespective of any dispute or difference raised by the Tenderer.

This guarantee shall be irrevocable and shall remain valid upto \_\_\_\_\_ [this date should be 6 months after the date finally set out for closing of tender]. If any further extension of this guarantee is required, the same shall be extended to such required period on receiving instructions from M/s. \_\_\_\_\_

whose behalf this guarantee is issued.

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this \_\_\_\_\_ day of \_\_\_\_\_ 200\_\_ at \_\_\_\_\_.

WITNESS:

(SIGNATURE)  
(NAME)

(SIGNATURE)  
(NAME)  
Designation with Bank Stamp

(OFFICIAL ADDRESS)

Attorney as per  
Power of Attorney No. \_\_\_\_\_  
Date: \_\_\_\_\_

**INSTRUCTIONS FOR FURNISHING BID-GUARANTEE  
BANK GUARANTEE**

1. The Bank Guarantee by bidders will be given on non-judicial stamp paper as per stamp duty applicable. The non-judicial stamp paper should be in the name of the issuing bank. In case of foreign bank, the said banks guarantee to be issued by its correspondent bank in India on requisite non-judicial stamp paper.
2. The expiry date as mentioned in bid document should be arrived at by adding 2 months to the date of expiry of the bid validity unless otherwise specified in the Bid Documents.
3. The bank guarantee by bidders will be given from bank as specified in ITB
4. A letter from the issuing bank of the requisite Bank Guarantee confirming that said bank guarantee /all future communication relating to the Bank Guarantee shall be forwarded to the Employer at its address as mentioned at ITB.
5. Bidders must indicate the full postal address of the bank along with the bank's E-mail/ Fax/. From where the earnest money bond has been issued.
6. If a bank guarantee is issued by a commercial bank, then a letter to Employer confirming its net worth is more than Rs. 1,000,000,000/- (Rupees one hundred crore) or equivalent along with a documentary evidence.



**FORMAT FOR LETTER OF CREDIT FOR BID SECURITY**

To,  
(Beneficiary)  
GAIL (India) Limited,  
PATA (INDIA)

Irrevocable and confirmed Letter of Credit No.....

Amount : Rs./US\$

Validity of this Irrevocable : .....(in India)  
Letter of Credit (2 months beyond validity of offer)

Dear Sir,

You are hereby authorized to draw on..... (Name of Applicant with full address) for a sum not exceeding.....available by your demand letter (draft) on them at sight drawn for.....Rs./US\$ accompanied by a certificate by GAIL (India) Ltd., with the Tender No. duly incorporated therein, that one or more of the following conditions has/have occurred, specifying the occurred condition(s) :

- (i) The bidder withdraws its Bid during the period of Bid validity or any extension thereof duly agreed by the Bidder.
- (ii) The Bidder varies or modifies its Bid in a manner not acceptable to GAIL (India) Ltd. during the period of bid validity or any extension thereof duly agreed by the Bidder.
- (iii) The Bidder, having been notified of the acceptance of its Bids,
  - (a) Fails or refuses to execute the supply order/contract
  - (b) Fails or refuses to furnish the Contract Performance Security within 30 days before expiry of bid Security.
  - (c) Fails to accept arithmetic corrections as per tender conditions.

2. This Irrevocable Letter of Credit has been established towards Bid Security Tender No.....for .....(item).

3. We hereby guarantee to protect the Drawers, Endorsers and bonafide holders from any consequences which may arise in the event of the non-acceptance or non-payment of Demand Letter (draft) in accordance with the terms of this credit.

4. This Credit is issued subject to the Uniform Customs and Practices for Documentary Credits (1993 Revised) International Chamber of Commerce brochure No. 500.

5. Please obtain reimbursement as under :  
.....

6. All foreign as well as Indian bank charges will be on the account of M/s  
.....(Applicant).

FOR.....

Authorized Signature  
(Original Bank)  
Counter Signature

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
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**F-13**

**CONTRACT-CUM-EQUIPMENT PERFORMANCE BANK GUARANTEE  
(PERFORMANCE SECURITY) - UNCONDITIONAL  
(ON NON-JUDICIAL PAPER OF APPROPRIATE VALUE)**

Bank Guarantee No.:

Date:

To  
GAIL (INDIA) LIMITED  
P.O.:PATA, DISTT. AURAIYA  
(U.P.) 206 041  
INDIA

M/s \_\_\_\_\_ have been  
awarded the work of \_\_\_\_\_  
for GAIL ( INDIA) LTD. , PATA, INDIA.

The Contracts conditions provide that the SELLER shall pay a sum of Rs. \_\_\_\_\_ (Rupees as full Performance Guarantee in the form therein mentioned. The form of payment of Performance Guarantee includes guarantee executed by Nationalized Bank, undertaking full responsibility to indemnify GAIL ( INDIA) LTD. , in case of default.

The said \_\_\_\_\_ has approached us and at  
their request and in consideration of the premises we having our office at  
\_\_\_\_\_ have agreed to give such guarantee as hereinafter mentioned.

1. We \_\_\_\_\_ hereby undertake and agree with you that if default shall be made by M/s \_\_\_\_\_ in performing any of the terms and conditions of the tender or in payment of any money payable to GAIL ( INDIA) LTD. we shall on demand pay without any recourse to the contractor to you in such manner as you may direct the said amount of Rupees \_\_\_\_\_ only or such portion thereof not exceeding the said sum as you may from time to time require.
2. You will have the full liberty without reference to us and without affecting this guarantee, postpone for any time or from time to time the exercise of any of the powers and rights conferred on you under the contract with the said \_\_\_\_\_ and to enforce or to forbear from endorsing any powers or rights or by reason of time being given to the said \_\_\_\_\_ which under law relating to the sureties would but for provision have the effect of releasing us.
3. Your right to recover the said sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) from us in manner aforesaid will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said M/s. \_\_\_\_\_ and/or that any dispute or disputes are pending before any officer, tribunal or court.
4. The guarantee herein contained shall not be determined or affected by the liquidation or winding up dissolution or changes of constitution or insolvency of the said but shall in all respects and for all purposes be binding and operative until payment of all money due to you in respect of such liabilities is paid.
5. This guarantee shall be irrevocable and shall remain valid upto \_\_\_\_\_. If any further extension of this guarantee is required, the same shall be extended to such required period on receiving instruction from M/s. \_\_\_\_\_ on whose behalf this guarantee is issued.
6. The Bank Guarantee's payment of an amount is payable on demand and in any case within 48 hours of the presentation of the letter of invocation of Bank Guarantee. Should the banker fail to

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release payment on demand, a penal interest of 18% per annum shall become payable immediately and any dispute arising out of or in relation to the said Bank Guarantee shall be subject to the jurisdiction of Delhi Courts.

7. We have power to issue this guarantee in your favour under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney dated \_\_\_\_\_ granted to him by the Bank.

Yours faithfully,

\_\_\_\_\_  
Bank

By its Constituted Attorney

(Signature of a person duly authorized to sign on behalf of the Bank.)

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INDIA**

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#### **INSTRUCTIONS FOR FURNISHING PERFORMANCE GUARANTEE**

1. The Bank Guarantee by successful bidder(s) will be given on non-judicial stamp paper as per stamp duty applicable. The non-judicial stamp paper should be in name of the issuing bank. In case of foreign bank, the said bank guarantee to be issued by its correspondent bank in India on requisite non-judicial stamp paper and place of bid to be considered as Delhi.
2. The bank guarantee by bidders will be given from bank as specified in ITB.
3. A letter from the issuing bank of the requisite Bank Guarantee confirming that said bank guarantee and all future communication relating to the Bank Guarantee shall be forwarded to Employer.
4. If a bank guarantee is issued by a commercial bank, then a letter to Purchaser and copy to Consultant confirming its net worth is more than Rs. 1,000,000,000/- (Rupees one hundred crore). or its equivalent in foreign currency along with a documentary evidence.

**AGREED TERMS AND CONDITIONS**

(Bidders must confirm / comment to all points)

SL. NO.	DESCRIPTION	VENDOR'S REPLY/ CONFIRMATION (tick ✓ whichever is applicable)	
1.	<p><b><u>Rejection Criteria:</u></b></p> <p><b>a)</b> Non-submission of EMD</p> <p><b>b)</b> Non-meeting BEC</p> <p><b>c)</b> Bids not submitted thru' e-tendering portal.</p> <p><b>d)</b> Bid Validity less than 4 months from final bid closing</p> <p><b>e)</b> Non-acceptance of delivery period</p> <p><b>f)</b> Non-acceptance of Performance Guarantee</p> <p><b>g)</b> Non-acceptance of PRS clause</p> <p><b>h)</b> Non acceptance of Guarantee /Warranty clause</p> <p><b>i)</b> Non-submission of Firm and Fixed Price</p> <p><b>j)</b> Non-submission of 'Integrity Pact' as per GAIL's format, duly executed on plain paper</p> <p><b>k)</b> Non-acceptance of Resolution of Disputes/Arbitration Clause, applicable laws and force majeure etc.</p> <p><b>l)</b> Any deviation to scope of supply, specification, SCC etc.</p> <p><b>m)</b> Non-submission of rate as per price schedule format (with all desired break-up i.e. Ex-works, taxes, duties, freight etc for Indian Bidder) The bid will be rejected in case written as actuals or to pay extra</p> <p><b>n)</b> Non-quoting of post warrantee AMC charges for 3 yrs.</p>	<b>Confirmed</b>	
2.	Bidder has not taken any deviation to the <b>Technical Specification</b> of tender. The same has been signed by authorized signatory with company seal affixed as token of acceptance and submitted with the un-priced bid.	<b>Yes</b>	<b>No</b>
3.	Bidder confirms that <b>PAYMENT TERMS</b> as per tender (refer Section IIIB of tender document) are acceptable.	<b>Yes</b>	<b>No</b>
5.	Bidder confirms that prices quoted by them are on F.O.T. Pata basis.	<b>Yes</b>	<b>No</b>
7.	<b>Part Order:</b> Confirm acceptance to <b>Part Order</b> (i.e. GAIL can place order for lower quantity than tendered quantity as per it's discretion)	<b>Yes</b>	<b>No</b>
8.	<b>Repeat Order:</b> Confirm acceptance of REPEAT ORDER clause as per GCC	<b>Yes</b>	<b>No</b>
9.	<b>Confirmation of acceptance to the terms and conditions of tender document including its Corrigenda/addenda, if any, in totality</b>	<b>Yes</b>	<b>No</b>
10.	Bidder Confirms that <b>blank/unpriced "Price Schedule"</b> format duly mentioning "QUOTED / NOT QUOTED" as applicable, under each column (please take care NOT to mention any price/rate in the said columns) <b>is submitted along with the technical bid</b>	<b>Yes</b>	<b>No</b>
11.	Specify Dispatch Point		

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SL. NO.	DESCRIPTION	VENDOR'S REPLY/ CONFIRMATION (tick ✓ whichever is applicable)	
12.	<p>a) Please confirm whether you are MSE and if so then you have submitted Documentary evidence that you are a Micro or Small Enterprises registered with District Industries Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom or any other body specified by Ministry of Micro, Small and Medium Enterprises.</p> <p>b) If the MSE is owned by SC/ST Entrepreneurs, the bidder shall furnish appropriate documentary evidence in this regard.</p> <p>c) The above documents submitted by shall be duly certified by the Statutory Auditor of the bidder or a practicing Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's company/firm) where audited accounts are not mandatory as per law.</p>		
13.	In case of contradiction between the confirmations given herein in this ATC and terms & conditions mentioned elsewhere in the offer, the confirmation given/confirmed herein ATC shall prevail. <b>Confirm Acceptance.</b>	Yes	No
14.	Confirm Documentation & Testing charges as per Technical Specifications/Bid Document are inclusive in your quoted prices.	Yes	No
15.	Confirm all the raw materials & components and those required to be imported for the manufacture and supply of items will be independently procured by you at your cost and expenses. Purchaser will not provide any Import License for the same.	Yes	No
16.	<b>Inland Transit Insurance:</b> Bidder confirms that the Prices quoted <b>exclude</b> Inland Transit Insurance. <b>Confirm Acceptance</b>	Yes	No
17.	Quoted prices shall be deemed to be inclusive of all applicable taxes, duties, levies, etc. strictly in accordance with the terms and conditions specified in BID Document. <b>Confirm acceptance.</b>	Yes	No
18.	<b>EXCISE DUTY</b>		
A	<p><b>Excise Duty:</b> a. Tariff sub-heading no.</p> <p>b. Confirm the present rate of Excise Duty (in %) considered in the price bid</p>	<p>a)..... b).....</p>	
B	<p>Please indicate following break-up</p> <p>a) Cenvatable Excise Duty b) Non Cenvatable Excise Duty</p>	<p>a)..... b).....</p>	
C	Confirm whether you will submit <b>CENVATABLE INVOICE</b> to GAIL to enable GAIL to claim <b>CENVAT CREDIT/BENEFIT.</b>	Yes	No
19.	<b>SALES TAX</b>		
A	Specify CST/ VAT		
B	Confirm the present rate of CST <b>against form 'C'</b> (in %) / VAT (in %) considered in the price bid:		
D	In case Sales Tax is not applicable on freight charges presently, and if it becomes applicable at the time of delivery due to any reasons other than statutory, the same will be borne by the Vendor.	Yes	No
E	Only statutory variations, if any, in the present rate of CST/VAT, upto contractual delivery period shall be to Owner's account subject to documentary evidence to be furnished by the vendor.	Yes	No

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SL. NO.	DESCRIPTION	VENDOR'S REPLY/ CONFIRMATION (tick √ whichever is applicable)	
20.	Confirm that in the event of order, bidder shall pass on the amount of Cenvat benefit to GAIL as mentioned by them in the price bid. Otherwise, GAIL shall deduct the differential amount.	Yes	No
23.	Confirm that bidder is not under any 'liquidation', any 'court receivership' or similar proceedings and 'bankruptcy'. If same is noticed / found in future, the Bid submitted may be rejected / terminated at any stage.		
24.	Confirm that any correction in documents submitted in the Un-priced part has been initialed and with company seal affixed by the authorized person	Yes	No
25.	Whether any of the Directors of Vendor is a relative of any Director of Owner or the vendor is a firm in which any Director of Owner or his relative is a Partner or the vendor is a private company in which any director of Owner is a member or Director.	Confirmed	Not Confirmed
26.	Please confirm you have not been banned or delisted by any Government or Quasi Government agencies or PSUs. If you have been banned, then this fact must be clearly stated. This does not necessarily be cause for disqualification. However if this declaration is not furnished the bid shall be rejected as non-responsive.	Confirmed	Not Confirmed
27.	Confirm that all documents submitted with bid against the subject tender are true and genuine and in case of any discrepancy noticed or observed at any stage, bidder shall be personally responsible not only for the damages or loss to GAIL, but also for criminal proceedings under the relevant laws.	Confirmed	Not Confirmed
28.	Confirm that the contents of the tender documents, its enclosures, amendment(s) /corrigenda/addenda etc. have not been modified or altered and in case, it is found that the tender document has been modified / altered by the bidder, the bid at any stage shall be liable for rejection.	Confirmed	Not Confirmed
29.	<b>Offer No. &amp; Date (Do not leave this blank)</b>		
30.	Bidder's Name (PO will be issued in this name)		
31.	Complete Address		
32.	Contact Details (Phone, Fax and e-mail ID)		

Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Designation \_\_\_\_\_  
Date \_\_\_\_\_  
Company's Seal \_\_\_\_\_

**INTEGRITY PACT WITH GAIL**

**Definition: 'Counterparty' refers to 'BIDDERS / CONTRACTORS / VENDORS / SUPPLIERS / SERVICE PROVIDERS / CONSULTANTS / ETC' AS APPLICABLE.**

**1. COMMITMENTS AND OBLIGATIONS OF THE "COUNTERPARTY"**

- f) The Counterparty, directly or indirectly (through agent, consultant, advisor, etc.), shall not pay any bribe / influence or give undue / unlawful benefit to anyone to gain undue advantage in dealing with GAIL.
- g) The Counterparty will not engage in collusion of any kind including price fixation etc. with other Counterparts.
- h) The Counterparty will not pass GAIL's confidential information to any third party unless specifically authorized by GAIL in writing.
- i) The Counterparties shall promote and observe best ethical practices within their respective organizations.
- j) The Counterparty shall inform the Independent External Monitor.
  - iv) If it received any demand, directly or indirectly, for a bribe / favor or any illegal gratification / payment / benefit;
  - v) If it comes to know of any unethical or illegal payment / benefit;
  - vi) If it makes any payment to any GAIL associate.
- k) The Counterparty shall not make any false or misleading allegations against GAIL or its associates.

**2. VIOLATIONS & CONSEQUENCES:**

- a) If a Counterparty commits a violation of its Commitments and Obligations under the Integrity Pact programmed ring bidding process, their entire Earnest Money Deposit / Bid Security, would be forfeited and in addition, they may be blacklisted from the GAIL business in future.
- b) In case of violation of the Integrity pact by Counterparty after award of the Contract, GAIL shall be entitled to terminate the Contract. GAIL would forfeit the security deposits, encash the bank guarantee(s) and other payments payable to Counterparty in such cases.
- c) Subject to satisfaction of the Independent External Monitor, GAIL may ban / blacklist / put on holiday and exclude the Counterparty from future dealings until GAIL is satisfied that the Counterparty shall not commit any such violation in future.
- d) In addition, of above, GAIL reserves its right to initiate criminal proceedings against the violating Counterparty, if the allegations by Counterparty are found frivolous, untrue and misleading and may impose exemplary cost for the same.
- e) The Counterparty will be entitled to claim as determined by the Independent External Monitor, if the above (d) is found incorrect.

**3. INDEPENDENT EXTERNAL MONITORS (IEMS)**

The following Independent External Monitor (IEM) have been appointed by GAIL, in terms of Integrity Pact (IP) which form part of GAIL Tenders / Contracts

1. Sh. V K Gupta

E-mail: [vinod102000@yahoo.com](mailto:vinod102000@yahoo.com)

He is authorized to examine / consider all references made to it under this tender. The bidder(s), in case of any dispute(s) / complaint(s) pertaining to this tender may raise the issue either with the designated Tender Issuing Officer in GAIL or directly with the IEMs on the panel c/o Chief Vigilance Officer, GAIL (India) Limited, GAIL Bhawan, 16, Bhikaji Cama Place, R.K. Puram, New Delhi – 110 066.



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**INTEGRITY PACT**  
(To be executed on plain paper)

**TENDER NO.:** \_\_\_\_\_

**Between GAIL (India) Limited, a Government of India Public Sector, (here-in-after referred to as “Principal”).**

**AND**

..... (here-in-after referred to as “The Bidder/ Contractor”).

**(Principal and the Bidder / Contractor are here-in-after are referred to individually as “Party” or collectively as “Parties”).**

**PREAMBLE**

The Principal intends to award under laid down organizational procedures, contract/s for ..... The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder / s and Contractor / s.

In order to achieve these goals, the Principal co-operates with the renowned International Non-Governmental Organization ‘Transparency International’ (TI). Following TI’s national and international experience, the Principal will appoint an Independent External Monitor who will monitor the tender process, the execution of the contract etc. for compliance with the principles mentioned above.

**Section 1 – Commitments of the Principal**

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following Principles in this regard:-
  - i) No employee of the Principal, either in person or through family members, including relatives, will in connection with the tender for or the execution of a contract, demand or accept a promise for or accept for him/herself or for a third person, any material or immaterial benefit to which he/she is not legally entitled.
  - ii) The Principal shall, during the tender process treat all Bidders with equity. The Principal undertakes and ensures that before and during the tender process shall provide and share the same information to all Bidders and will not provide to any Bidder confidential / additional information through which one particular Bidder could take an advantage in relation to the tender process or the contract execution.
  - iii) The Principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

**Section 2 – Commitments and Undertakings by the Bidder/Contractor**

1. The Bidder / Contractor commits and undertakes to take all measures necessary to prevent malpractices & corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution:
  - i) The Bidder / Contractor undertakes not to, directly or through any other person or firm offer, promise or give or influence to any employee of the Principal associated with the tender process or the execution of the contract or to any other person on their behalf any material

or immaterial benefit to which he / she is not legally entitled in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- ii) The Bidder / Contractor undertakes not to enter into any undisclosed agreement or understanding, whether formal or informal with other Bidders. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other action to restrict competitiveness or to introduce cartelization in the bidding process.
- iii) The Bidder / Contractor undertakes not to commit any offence under the relevant Anti-corruption Laws of India. Further, the Bidder / Contractor will not use improperly any information or document provided by the Principal as part of the business relationship regarding plans, technical proposals and business details, including information contained or transmitted electronically for the purposes of competition or personal gain and will not pass the information so acquired on to others.
- iv) The Bidder / Contractor will, when presenting his bid undertakes to disclose any and all payments made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

2. The Bidder / Contractor will not instigate and allure third persons / parties to commit offences outlined above or be an accessory to such offences.

### **Section 3 – Disqualification from tender process and exclusion from future contracts**

If the Bidder, before the award of contract, has committed a transgression through a violation of any provisions of Section 2 or in any other form so as to put his reliability or credibility as Bidder into question, the Principal shall be entitled to disqualify, put on holiday or blacklist the Bidder including from the future tender process or to terminate the contract, if already signed, on that ground.

- 1. If the Bidder / Contractor has committed a transgression through a violation of any provisions of Section 2 so as to put his reliability or credibility into question, the Principal shall be entitled to exclude including blacklist and put on holiday the Bidder / Contractor from entering into any GAIL future contract tender processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Principal taking into consideration the full facts and circumstances of each case particularly taking into account the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion may be imposed for a minimum period of 6 months and maximum of three years.
- 2. A transgression is considered to have occurred if the Principal after due consideration of the available evidence, concludes that no reasonable doubt is possible.
- 3. The Bidder with its free consent and without any influence agrees and undertakes to respect and uphold the Principal's absolute rights to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
- 4. Subject to the full satisfaction of the Principal, the exclusion of the Bidder / Contractor could be revoked by Principal prematurely if the bidder / contractor can prove that he has restored / recouped the damage caused by him and has installed a suitable corruption prevention system in his organization.

**Section 4 – Forfeiture of EMD / Security Deposits**

1. If the Principal has disqualified the Bidder from the tender process prior to the award in terms of Section 3, and during the execution of the contract, the Principal shall forfeit earnest money deposit / bid security money, en cash the bank guarantee including due payments in addition to blacklisting or putting on holiday the bidder and terminating the contract.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to Earnest Money Deposit / Security Deposit / Performance Bank Guarantee.
3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder / Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount of the liquidated damages, the Bidder / Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

**Section 5 – Previous transgression**

1. The Bidder swears on oath that no previous transgression has occurred during the last three years with any other Company in any country conforming to the TI approach or including with any other Public Sector Enterprise / Undertaking in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he shall be disqualified from the tender process or the contract, if already awarded, could be liable to be terminated on this ground.

**Section 6 – Equal treatment to all Bidders / Contractors / Subcontractors**

1. The Bidder / Contractor undertakes to demand from all its sub-contractors, if any, an undertaking and commitment in conformity with this Integrity Pact, and to submit it to the Principal before signing of the contract.
2. The Principal will enter into agreements with similar conditions, as stipulated herein, with all Bidders, Contractors and Subcontractors.
3. The Principal shall disqualify from the tender process all Bidders who do not sign this Pact or violate any of its provisions.

**Section 7 – Criminal charges against violating Bidders / Contractors / Sub-contractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office / Department for initiating appropriate action for above.

**Section 8 –Independent External Monitor / Monitors (Three in number depending on the size of the contract)**  
**(To be Decided by the Chairperson of the Principal)**

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

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2. The Monitor is not subject to any instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Sub-contractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder / Contractor / Sub-contractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement he will so inform the Management of the Principal and request the Management to discontinue or heal the violation or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the bidder / contractor to present its case before making its recommendations to the Principal.
6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and should the occasion arise, submit proposals for taking corrective measures.
7. Monitor shall be entitled to compensation by the Principal on the same terms & conditions as being extended to/provided to Outside Expert Committee Members of ONGC.
8. If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
9. The word 'Monitor' would include both singular and plural.
10. Independent External Monitor shall be required to maintain confidentiality of the information acquired and gathered during their tenure / role as Independent Monitor. Any breach in this regard would be subject to the legal judicial system of India.
11. The Independent External Monitors shall be responsible to oversee the implementation of Integrity Pact Program to prevent corruption, bribes or any other unethical practices in the GAIL. However, Monitor(s) shall be personally and severally be liable for any action or suit brought by Bidder / Contractor / against the Monitor, in case the findings of Independent Monitor is / are found incorrect or biased or prejudiced.
12. Independent External Monitor(s) shall be required to furnish an Undertaking and shall disclose before taking any assignment that he / she has no interest in the matter or connected with the party (bidder / contractor) in any manner.

#### **Section 9 – Pact Duration**

The provisions of this Pact shall come into effect from the date of signing of this Pact by the both parties. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

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If any claim is made / lodged by either party during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by the Chairperson of the Principal.

#### **Section 10 – Miscellaneous provisions**

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi. The Arbitration clause provided in main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.
2. Changes and supplements as well as termination notices, if any, need to be made in writing. Side agreements have not been made.
3. If the Contractor / Bidder is a partnership concern or a consortium, this agreement must be signed by all partners or consortium members.
4. In case any or several of the provisions of this agreement turn out to be void, the remainder of this pact shall remain valid. The parties to this pact however, shall strive to come to an agreement to their original intentions in such a case.

-----  
(Name & Designation)  
For the Principal

-----  
(Name & Designation)  
For the Bidder/Contractor

Place -----

Witness 1: -----

Date -----

**CERTIFICATE FOR LOGISTIC SUPPORT**

(To be signed by authorized signatory on company's Letterhead)

1. On behalf of M/S \_\_\_\_\_ confirms that the EPBAX SYSTEM quoted by us for GAIL, Pata against Requisition No. \_\_\_\_\_ shall continue to be supported by us. The quoted system shall not be withdrawn from Indian market.
2. Further confirm that in case of placement of order against this requisition, we shall provide backup, engineering, maintenance support and spare parts support to GAIL for a period of 5 years from the date of placement of order.
3. Spares will be directly supplied by us & not through our authorized representative/ channel partner/ Dealer/ Stockist/ Indian associates or representative.

**(SIGNATURE WITH SEAL)**

Note: If the vendor is an authorized or legal representative of any Principal the support letter from Principal is also required

# **Section VI**

## **Price Schedule**

**SECTION – VI**

**PRICE SCHEDULE/SCHEDULE OF RATES**  
**(The prices has to be quoted strictly in this format only)**

**SUPPLY PART**

SN	Description	UOM/ Unit of Measur ement	Qty	Ex-works Price excluding P&F charges, ED & ST	P&F Charges		Excise Duty		Sales Tax with Form- C		Freight upto GAIL Site at Pata		Minimum amount or % of CENVAT benefit to be passed on to GAIL		Unit Price of FOT site (5+6+7+8 +9)-(10)	Total Amount FOT Site PATA Basis
					%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	Amount	Total Amount (11) X (4)
(1)	(2)	(3)	(4)	(5)	(6)		(7)		(8)		(9)		(10)		(11)	(12)
	8525500901 COMPLETE IP BASED EPABX SYSTEM	EA	01													
	8525250031 DESKTOP DIGITAL TELEPHONE	EA	34													
	8560159901 DESKTOP IP TELEPHONE	EA	9													
	8415718151 COMPLETE OFC BASED LAN/ WAN SYSTEM	EA	1													
	7108151201 COMPLETE FLOAT CUM BOOST CHARGER ,48V DC	EA	1													
	8560159331 UPS,ONLINE	EA	3													
	8415718211 COMPUTER/ INTEGRATED WORK STATION	EA	2													

**Each line items has to be compulsorily quoted None of the items should be left blank or written as inclusive. In case left blank or written as inclusive the bid will be rejected.**



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**Installation & Commissioning**

SN	Description	UOM/ Unit of Measurem ent	Charges on FOT site basis	Service Tax (%)	Service Tax Amount (3) X (4)	CENVAT amount to be passed on to GAIL against Service Tax	Total Amount FOT site basis net of CENVAT (3)+(5)-(6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Y	INSTALLATION, TESTING AND COMMISSIONING	LUMP-SUM					

**Post Warrantee Comprehensive Annual Maintenance Charge**

SN	Description	UOM/ Unit of Measurem ent	Charges per 3 months/ (1 Quarter)	Total Charges for 36 Months/ 12 Quarters	Service Tax (%) & Service Tax Amount	CENVAT amount to be passed on to GAIL against Service Tax	Total Amount net of CENVAT (4)+(5)-(6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Z	POST WARRANTEE COMPREHENSIVE ANNUAL MAINTENANCE CHARGE OF EPABX SYSTEM FOR 3 YEARS	1 Quarter ( 3 months)					

**Note:**

1. Price Schedule filled with price should be submitted with the PRICE BID only in e-portal.
2. If any of the columns above is left blank, the same will be considered as included in the Total amount.
3. Evaluation shall be done on overall lowest evaluated L1 price by adding X+Y+Z. (Refer evaluation procedure of the tender)
4. With regard to service tax on installation and AMC please refer SCC clause no. 7

Signature of Authorized Signatory\_\_\_\_\_

Place: \_\_\_\_\_

Name & Designation: \_\_\_\_\_

Date: \_\_\_\_\_

Seal: \_\_\_\_\_

BID DOCUMENT NO: GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311] Dated 02.05.2013

**LIMITED DOMESTIC COMPETITIVE BIDDING  
(E-TENDER)**

**BID DOCUMENT**

**FOR**

**UPGRADATION OF EPABX SYSTEM  
AT  
GAIL (INDIA) LIMITED, PATA (UP) INDIA**

BID DOCUMENT NO: GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]

**Volume 2 of 2  
(Technical)**

# Technical Specification

## **TECHNICAL PART OF TENDER DOCUMENT**

**(SCOPE OF WORK, GENERAL GUIDELINES, TECHNICAL SPECIFICATIONS, SPECIAL  
CONDITIONS OF CONTRACT & SCHEDULE OF RATE)**

**FOR  
COMPOSITE WORK OF DESIGN, ENGINEERING SUPPLY, INSTALLATION,  
TESTING & COMMISSIONING**

**OF  
IP BASED EPABX SYSTEM AND ITS ASSOCIATED  
COMMUNICATION INFRASTRUCTURE  
(AGAINST BUYBACK OF OLD SYSTEMS)  
FOR**

**GAIL PETROCHEMICAL COMPLEX  
AT & P.O. DIBIYA PUR, DIST AURAIYA  
UP 206 241 (INDIA)**

## **TABLE OF CONTENT**

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## **PART – I**

# **BRIEF DESCRIPTION OF THE REQUIREMENT**

### **1.0 BRIEF DESCRIPTION OF THE REQUIREMENT**

#### **1.1 INTRODUCTION**

GAIL (India) Limited (A Govt. of India Undertaking under Ministry of Petroleum & Natural Gas) is having business in diversified areas such as transportation of natural gas and LPG, production of LPG & petrochemical products and telecommunications. ([www.gailonline.com](http://www.gailonline.com))

At Petrochemical Complex, PATA Digital EPABX systems were installed at following locations:

SS4	- Sub Station no 4 ( Central Site)
QC- LAB	- Quality Control LAB
SS-1	- Sub Station no 1
SB-1	- Service Building no 1
D/S Control Room	- Downstream (HDPE/LLDPE) Control Room

These EPABX systems were interconnected by 2Mbps PCM links extended over copper using HDSL modems to provide campus wide intercom facility.

Rectifier based (1+1) FCBC systems along with battery bank were used to provide -48VDC power supply to EPABX and other Telecom Systems installed in the same location.

In the scope of the present tender, GAIL desires to upgrade existing Digital EPABX System and associated telecom infrastructure of Petrochemical Complex Pata. The proposed system shall be used for providing campus wide effective and reliable two-way intercom facility for plant operation and during critical/emergency situations.

Following activities briefly outlines the requirement:

- 1) Replacement of Existing PCM/TDM based EPABX system with IP EPABX System
- 2) Deployment of Campus wide OFC based LAN/WAN system for EPABX Connectivity
- 3) Replacement of Existing FCBC system with Modular SMPS based DC power plant
- 4) Supply of UPS system for network management and call monitoring system
- 5) Supply of PC, Workstations consoles, spares, other associated items.
- 6) Decommissioning and Disposal of old systems under buyback
- 7) Providing Warranty and AMC services

Work execution methodology for total system is given below:

#### **STAGE 1) Up-gradation of Infrastructure**

- Laying of 12F, SM OFC cable between Exchange Locations

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- Installation of Utility Rack for Fiber Termination and Power Distribution
- Installation of Gigabit fiber LAN Hardware
- Installation of FCBC/ UPS and Battery Bank

**STAGE 2) Installation of New EPABX System**

- Installation of EPABX at specified locations
- Installation of associated systems (VMS, AA, Console, NMS, digital, IP Phones)
- Installation of MDF for Termination of subscriber lines
- Integration of EPABX units over OFC
- Configuration, Programming, Commissioning and SAT

**STAGE 3) Changeover to New Exchange**

- Shifting of existing subscribers to new EPABX
- Shifting of Existing Links (PRI, PSTN, PA System) etc to New EPABX
- Trial run (15 Days) of total system

**STAGE 4) Decommissioning of Existing Systems**

- Decommissioning of Old Exchange/ Associated items
- Decommissioning FCBC Power Plants
- Decommissioning of Rack, cables, connector etc

**STAGE 5) Disposal of Old system under buyback**

- Removal of all hardware from GAIL's premises for further disposal

**STAGE 6) Training as per schedule**

**STAGE 7) Handing over / Final Acceptance of the system by GAIL**

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INDIA**

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## **PART – II**

### **SCOPE OF WORK**

## **PART II : SCOPE OF WORK**

The Vendors scope of work defined in this document shall be on turnkey basis, and shall include the following:

Site -Survey, project management, system design, detailed engineering, manufacture, procurement and supply of all related goods and providing all related services including FAT, installation, testing, integration, commissioning, test run, documentation, warranty, training, etc complete in all respect for implementation of IP BASED EPABX SYSTEM for GAIL Petrochemical Complex, PATA.

The detailed scope of work & supply shall include but not limited to the following:

- 2.1 SITE SURVEY
- 2.2 DESIGN AND ENGINEERING.
- 2.3 SUPPLY AND STORAGE OF EQUIPMENT
- 2.4 FACTORY ACCEPTANCE TEST (FAT)
- 2.5 INSTALLATION TESTING AND COMMISSIONING
- 2.6 SITE ACCEPTENCE TEST (SAT)
- 2.7 TRAIL RUN
- 2.8 TRAINING
- 2.9 DOCUMENTATION
- 2.10 ON SITE WARRANTY /SUPPORT SERVICES
- 2.11 DECOMMISSIONING AND DISPOSAL OF OLD SYSTEM UNDER BUYBACK
- 2.12 POST WARRANTY AMC SERVICES



## **2.0 DETAILED SCOPE OF WORK:**

**2.1 SITE SURVEY:** The vendor shall carry out site survey to understand user needs, site conditions, equipment layout, cable routes, coverage required, power budgets etc. so as to finalize the schedule /requirements for commissioning of the system. A Detailed report to be submitted to GAIL for approval covering the following details:

- Identifying Locations for installation of EPABX System and its associated subsystems
- Finalization of Space, Power, and Earthing requirements
- Preparation of Cabling Schedule
- Finalization of Cable route
- Understanding site specific requirements for EPABX Programming and configuration
- Understanding network Connectivity requirement.
- Study of existing EPABX System and associated items.
- Preparation of project schedule / time line for various activities.

## **2.2 DESIGN AND ENGINEERING:**

The vendor shall be fully responsible for detailed engineering and design of the proposed IP BASED EPABX SYSTEM & associated equipments. Under design & engineering, the vendor shall consider required site-specific configuration, power budgeting, Interface requirement, space /power, battery capacity planning as per technical specifications & requirements of tender document.

Complete design and engineering of the requirement needs to be completed before submission of the bid. In this regard, the bidder shall furnish detailed schematic diagram, BOQ, Source of supply, design data etc of the offered solution, clearly specifying / depicting various functional modules and their inter-connection setup **at the time of submission of technical bid itself.**

## **2.3 SUPPLY AND STORAGE OF EQUIPMENT:**

This shall include but not limited to supply and storage of equipment and all other items required for installation and commissioning of the systems/equipments including the following:

- Transportation of system/equipments and all other components from locations of manufacturing to the locations of installation.
- Storage during transit, transit insurance & storage/ warehousing as required until readiness of owner's sites.
- Statutory clearances including clearances of customs, excise, octroi, entry tax and others, as required for all supplied items.

## **2.4 FACTORY ACCEPTANCE TEST:**

- This shall include but not limited to preparation of detailed quality assurance programme, quality control parameters for equipment manufacturing and implementation of the systems, preparation of implementation methodology covering schedule of supply, installation, testing and commissioning. The Equipment/System design has to be approved by GAIL before actual manufacturing and supply.

- GAIL shall carry out FACTORY ACCEPTANCE TEST at Vendors works before shipment of equipments, materials at site. Vendor shall make necessary arrangement for the testing of the same in presence of Owner's representatives before dispatching them to site for installation at site.
- FAT plan shall be proposed by vendor and approved by Engineer-in-charge. After successful completion of FAT of Complete System the same shall be delivered at site for further installation testing and commissioning.
- For FAT, SAT & Test Run, vendor shall also adhere to the instructions as specified under "Inspection & Testing Guidelines" mentioned below:
  - i. It shall be explicitly understood that under no circumstances shall any approval of GAIL or his representative shall relieve the Vendor of his responsibility for material design, quality assurance and the guaranteed performance of the system and its constituents.
  - ii. Vendor shall inform the owner, at least 7 days in advance of the date at which the system would be ready for testing. All relevant documents, test plan and manuals shall be submitted to GAIL before that time.
  - iii. Vendor shall arrange sufficient manpower of required skill and material for conducting various tests. All technical personnel assigned by the vendor shall be fully conversant with the system specifications and requirements. They shall have the specific capability to demonstrate complete system features and functionalities and to incorporate any minor modifications/ suggestions put forward by the owner if so required to meet tender specifications and requirements.
  - iv. Till GAIL accepts the system, a log of each and every failure of components shall be maintained. It shall give the date and time of failure, description of failed component, circuit, module, component, effect of failure of component on the system/ equipment, cause of failure, date and time of repair, mean time to repair etc.
  - v. Methodology to be followed during IAT, Installation, SAT, Test Run and Commissioning shall include but not limited to the following:

#### **FAT GUIDELINES:**

The vendor on his own exactly in line with FAT procedure shall conduct pre-factory acceptance testing and test reports for the same shall be forwarded to Owner/Engineer before start of FAT.

FAT shall be carried out after review and approval of FAT procedure/documents as per tender requirements.

FAT shall be conducted in the presence of the representative Owner. The tests shall be carried out on all systems/items including those supplied by Sub-vendors and acceptance certificates shall be issued. The FAT shall include but not be limited to:

- Mechanical checks to the equipment for dimensions, inner and outer supports, finishing, welds, hinges, terminal boards, connectors, cables, painting etc.
- Electrical checks including internal wiring, external connections to other equipment etc.
- Check for assuring compliance with standards mentioned in the specifications.
- Verification BOM, specifications etc as per tender documents
- Individual check on each module/sub-assembly as applicable
- Checks on power consumption and heat dissipation characteristics of various equipments
- Functional testing covering the features & functions of the system and its associated items as per tender specifications
- Any other test not included in System document but relevant to the project as desired by the Owner/Engineer at the time of factory acceptance testing.

vi. **TEST REPORT:**

The observations and tests results obtained during various tests shall be compiled and documented to produce Test reports by the Vendor. The Test reports shall be prepared & submitted for each equipment/ item and the system. The report shall contain the following information as a minimum:

- Unit/Equipment under Test
- Purpose of the Test.
- Test procedures and expected test result.
- Test results.
- Remarks & comparison of tests results with the anticipated test result as given in test plans and reasons for deviations if any.

## **2.5 INSTALLATION, TESTING AND COMMISSIONING:**

### **2.5 .1 Installation**

After successful completion of FAT, all parts and components of IP BASED EPABX SYSTEM and associated items shall be sent to site for installation. GAIL shall provide space, power and earthing for installation and commissioning of supplied system/equipment. For the installation of IP BASED EPABX SYSTEM at site, the vendor shall carry out the following works as a minimum:

#### **2.5.1.1 Site preparation and pre work** covering the following as minimum:

- a. Verification of installation plan, equipment layout, GA drawing etc for each site.
- b. Preparation, conditioning and clearing of site before installation.
- c. Installation of suitable type of cable trays / conduits for routing, distribution, & extension of various cables inside buildings.
- d. Cable trays/conduits shall be installed / mounted suitably in vertical or horizontal planes keeping in view of the aesthetics of equipment room for fixing of cable treys, raceways, base plate other HW fixtures suitable for

- Installation of equipment racks
- Routing of cable from Rack to MDF
- Routing of Input power cable (230VAC)
- Routing of DC output cable from FCBC to DCDB/systems
- Battery connections
- Equipment earthing upto ground bus.
- OFC cable entry, routing, and storage of extra OFC loops
- Routing of OFC patch cables

#### **2.5.1.2 RACK Installation:**

42U equipment racks shall be installed at appropriate location having sufficient clearance from all side as per approved installation plan

For installation of rack above existing cable drains, suitable MS mounting frame, base plate shall be supplied /fabricated and fixed by welding, drilling etc as per site requirement.

For installation of Rack directly above floor shall be done by drilling 4x anchor bolt/fasteners firmly on the floor so as to withstand any lateral force.

Alignment /placement of equipment rack should match existing equipment layout of telecom rooms so as to give neat and tidy appearance.

Alignment/ placement of equipment rack should such that it provide proper cooling / heat dissipation

Alignment/ placement of Equipment rack should be such that all cable entry, exit points, equipment interconnections, cabling can be done without any clutter, congestion etc

Equipment racks shall be properly grounded and anti- static wrist bands shall be provided in each rack.

#### **2.5.1.3 Mounting of Equipment Subsystem etc on Rack:**

All hardware of IP BASED EPABX SYSTEM and its associated items shall be mounted in rack as per approved plan.

Ideally, two separate racks shall be provided in each equipment room in side-by-side configuration. One Rack shall be used for mounting, installation of All hardwares of **IP BASED EPABX SYSTEM** including

Communication server sub rack  
Peripheral shelves, Media gateways,  
Switch, Patch panels etc

Second Rack shall be used exclusively for mounting and installation of utility, associated items including

- FCBC and Battery Bank
- DC Distribution Frame
- Fiber Management System
- Ethernet Access Units, modems, converters etc
- Other peripherals as per site configuration

Layout of equipment's inside rack cabinet should be done considering the following:

- Ease of access during maintenance / troubleshooting
- Proper heat dissipation/ air circulation
- Space for capacity addition/ future up gradation
- Easy interconnect, routing of cables without any clutter

For sites having smaller number of hardwares all equipments sub systems etc can be installed in a single 42U Rack as per approved plan.

#### **2.5.1.4 Installation of Power Supply units (UPS/FCBC/Battery banks) (06 Units)**

Installation of FCBC system should be done by OEM (of offered FCBC system) or OEM certified system engineer as per OEM approved procedure.

- FCBC System shall be mounted in 19" utility rack
- Input supply, 230VAC should be provided through a MCB of suitable rating
- Ratings, of AC, Load, and battery cables should be as per OEM recommendations
- Fuse to be provide for battery isolation
- Electrical safety requirement of all equipment should be complied
- DC distribution point should be provided in each rack
- Spare MCB shall be provided for future load distribution
- All connectors, terminals etc shall be sealed with heat shrink sleeves
- Distribution points, input, out points shall be properly identified and labeled
- Existing battery banks (SMF/VRLA) shall be used for providing backup

If sufficient space is available inside equipment rack, battery bank shall be installed inside utility rack, else the same shall be installed at suitable location adjacent of utility rack as per site specific requirement.

Through electrical testing needs to be carried before connecting load, equipments etc to new FCBC system including:

- Continuity check
- Insulation test
- Load, Battery, Voltage current measurement, adjustment
- Rectifiers, SMPS module test
- Battery backup test
- System stability test

#### **2.5.1.5 Installation of Main Distribution Frame (06 Unit)**

Main distribution frame shall be firmly fixed in wall of equipment room. Routing of all cables from Equipment Rack to MDF shall be through cable tray (GI Perforated / Aluminum ladder type) of suitable size.

All digital, analog, subscriber cables shall be terminated in Krone modules sequentially as per TEC/ITD/ITU standards. Spare cable entry exit points shall be properly sealed to avoid dust/ rodent ingress.

#### **2.5.1.6 OFC cable Laying:**

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Approximately 9 Km OFC cable (12F, multi tube SM, G.652 Armored cable) has to be laid between EPABX locations as per the following:

S/no	From Location	To Location	Approx distance	Cable laying mode
1	QC-Lab	SS4	1800 m	Along existing cable tray
2	QC-Lab	SS1	1200 m	Along existing cable tray
3	QC-Lab	D/S-C/Room	2800 m	Along existing cable tray
4	SS-1	SB-1	800 m	Along existing cable tray
5	SS-4	Admin	800 m	Along existing cable tray + Excavation 400 meter

The scope includes the following:

**A. OFC laying in existing Indoor / Outdoor cable tray including:**

1. Handling/ shifting/storage of OFC cable drums
2. Laying of Armored OFC cable along existing cable tray
3. Fixing, clamping of cable using suitable cable tie (GI wire/strips) at 2.5 meter interval
4. Routing of cables inside buildings upto termination point through suitable polyethylene / polyamide conduits.
5. Supply, fabrication, and fixing of wire mesh type basket of 1.2mx1.2m size depth ~15 cm inside telecom room / cable cellar for storing extra OFC loops
6. Storage of extra OFC loop (min 25 meter) at each end

**B. OFC laying in Cable trench:**

For location where cable tray is not available, OFC cable shall be laid through HDPE duct in underground cable trench of min 0.9 m depth as per the following:

1. Excavation of cable trench upto 0.95 m depth
2. Supply and spreading fine sand upto 5 cm
3. Laying of HDPE duct of min 40mm dia (to be supplied by GAIL)
4. Crossing of road by HDD / open cut as required
5. Supply and fixing of duct couplers to join two sections of ducts
6. Backfilling of trench upto 35cm
7. Supply and laying of PVC warning mat in the trench
8. Complete backfilling of cable trench
9. Restoration of original road surface by watering and compaction

After laying of HDPE duct, OFC has to be pulled through the newly laid ducts for providing end-to-end OFC connectivity between buildings.

Generally existing cable entry, exit points shall be used for making cable entry to a building. If use of existing cable entry is not suitable and cable has to be laid by in cable trench or through perforated GI cable trays (to be supplied by vendor) fixed above ground as per site-specific requirement so as to deliver end to end connectivity between Proposed EPABX Locations.

**C. Installation of Fiber Management System:**

Fiber Management System shall be installed inside rack enclosure with sufficient clearance for routing patching of cables, patch cords without stress/strain. Termination of OFC in rack mount FMS shall be done as per best workmanship/ industrial practice. Following steps are generally involved for jointing of the cable:

- Routing of cable inside equipment rack with min bending radius 1.2m
- Dressing and cable entry to FMS
- Stripping/cutting the cable

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- Preparation of Cable and joint closure for splicing
  - Stripping and Cleaving of Fibres
  - Stripping, cleaning cleaving of pigtails
  - Fixing of sleeves in each fiber
  - Fibre splicing using high precision fusion splicing machine
  - Fixing of heat shrink sleeves with hardeners to protect spliced pigtails
  - Organizing routing of bare fiber, and pigtails inside splicing tray
  - Closing & sealing of FMS
  - Splicing of Fibres shall be done by fusion splicing only.
- 
- Splicing loss in each fiber during splicing should be better than 0.01 db at 1550 nm by OTDR.
  - 25-meter OFC in coil form should be kept at both the ends.
  - The loss /attenuation should be 0.17 to 0.25 db/km at 1550 nm and 0.28 to 0.40 db/km at 1310 nm

After completion of OFC laying, splicing, and termination of fibers, following tests shall be conducted:

1. OTDR testing of each fiber at 1310 and 1550 nm
2. Power meter testing at 1310 and 1550 nm for fiber identification, measurement of insertion loss
3. As build drawing shall be prepared for entire OFC sections in Min A23 Size paper covering 500m OFC segment

#### **2.5.1.7 Installation of other subsystems:**

The scope includes,

- Installation of Management Console
- Installation of Managed Ethernet Switch, Access Unit etc
- Installation of Voice mail system
- Installation of Auto attendant system
- Installation of Call billing accounting system

Power cable should be extended from existing power supply system or distribution board/panel to Power Distribution board/panel provided by the Vendor using minimum 4 sq.mm armoured power cable.

Power Distribution board/panel should be equipped with at least 2 nos. of spare MCBs of equal rating, as that of used for extending power to vendor supplied system/equipment.

All types of power cable termination and earth cable termination shall be carried out using copper lugs.

GAIL's existing earthing points shall be made available to Vendor. Vendor may use the same, if found suitable for their supplied equipment. Otherwise, Vendor shall have to make the necessary arrangement for equipment earthing without any cost implication to GAIL.

Each system/equipment sub-rack must be provided with Anti-static wrist wrap.

Suitable SS cable gland must be provided for all type cable termination inside MDF, DP BOX and Rack/Subrack.

All types of cables shall be labeled on both ends for identification.

#### **2.5.1.8 Installation of IP Based EPABX SYSTEM**

- 1) Before taking up the installation of **IP BASED EPABX SYSTEM** and associated items, the same shall be checked for completeness as per specifications for a particular station/site. Installation shall be carried out in accordance with manufactures installation manuals and approved installation drawings with best workmanship.
- 2) Vendor shall depute installation team consisting of adequate manpower having skills & technical expertise for completing the work within the stipulated time frame.
- 3) Vendor shall bring all installation tools, accessories, special tools, spares parts etc. at his own cost as required for the successful completion of the job. Vendor shall include all installation materials required for proper installation of the **IP BASED EPABX SYSTEM** in the scope of supply. These shall include but not be limited to, all connectors, inter-bay and inter equipment cables, power supply cables and connectors, power distribution boxes, anchoring bolts, nuts, screws, washers, main distribution frames, junction boxes, cable glands, cable tags, markers, cable tray, conduits, pipes angles, brakets etc.
- 4) The installation of equipments shall be done so as to present neat and clean appearance in accordance with approved installation document/drawings. All inter bay, power supply and other cables shall be routed through cable trays. No cable shall be visible inside equipment room. All through wall openings, trenches etc. shall be properly sealed to prevent the entry of rodents, insects and foreign materials.
- 5) **System programming** of the new **IP BASED EPABX SYSTEM** as per GAIL's requirement including:
  - Programming and configuration of main EPABX system parameters
  - Programming and configuration of subscribers as per approved numbering plan
  - Programming of trunks, other interface
  - Programming and configuration of Class of services, feature facility codes
  - Programming and configuration of Voice guides, greeting, ACD call routing
  - Programming and configuration of speech path, Subscribers groups
  - Programming and configuration of alarm interface and other network ports
  - Programming and configuration of attendant consoles
  - Programming and configuration of IP Phones
  - Programming and configuration of Digital phones
  - Programming and configuration of call billing system
  - Programming and configuration of Management console
  - Programming and configuration of Ethernet Switch, fiber ports, LAN port etc
- 6) If during installation and commissioning any repairs are undertaken, the maintenance spares supplied with **IP BASED EPABX SYSTEM** shall not be used for the repair. Vendor shall arrange his own spare parts for such activities till the system has been finally accepted by the Owner. A detailed report & log of all such repairs shall be made available by the vendor to Owner/Engineer and shall include cause of faults and repair details.
- 7) A detailed time schedule for the activities to be undertaken shall be submitted by Vendor to Owner/Engineer to enable their representatives to be associated with the job.



### **2.5.2 Pre-Commissioning:**

- 1) Upon completion of the installation/erection of equipment, they shall be jointly inspected by Vendor & GAIL's representatives before start-up operations are undertaken. The correctness and completeness of the installation as per manufacturer's manual & approved installation documents shall be gauged leading to pre-commissioning activities at site.
- 2) During pre-commissioning, if any fault occurs to any systems/associated items, vendor shall identify the same and provide report/history of all faults to the Owner.
- 3) During installation and pre-commissioning of the **IP BASED EPABX SYSTEM** vendor shall have enough number of commissioning spares so that installation activity is not delayed due to non-availability of commissioning spares. Vendor shall ensure that the spares meant for operation and maintenance is not used during installation and commissioning.
- 4) The vendor shall carryout necessary system provisioning/configuration for making **IP BASED EPABX SYSTEM**, ready for deployment.
- 5) The vendor shall provide project management services (PMS) to meet the quality objectives and for the timely completion of the project successfully. The PMS shall include but not limited to the following:
  - (i) Carry out surveillance on all project related activities and monitor progress of the project.
  - (ii) Submit periodic status reports to GAIL. The periodicity of status report will be informed to vendor after the award of contract.
  - (iii) Attend Project Meeting with GAIL's Project Manager & GAIL Management for review of project timeline and critical activity.
  - (iv) The vendor shall provide qualified & experienced project management team for smooth & timely project execution.

### **2.6 SITE ACCEPTANCE TEST (SAT)**

On completion of Pre-commissioning, site acceptance testing shall be conducted on the system as per approved SAT procedures and its constituents by the vendor in presence of Owner/Engineer. The tests shall include, but not be limited the following:

- Checks for proper installation as per the approved installation drawings
- Functional testing covering the features & functions of system to meet site specific requirements
- Testing of supplied Spares modules / cards
- Any other test not included in SAT document but relevant for site operation

## **2.6.1 INSPECTIONS , TESTING & SAT GUIDELINES:**

### **2.6.1.1 TEST PLAN :**

For all types of inspection & testing SAT & Test Run vendor shall prepare and submit Test Procedures & Plans to GAIL for approval. The Test plans & procedures need to be submitted well in advance before the commencement of actual testing. The procedures/plans shall include time schedule for the tests, purpose/objective of test, identification of test inputs, test procedure and details of desired output, a column for actual value obtained during the tests and remarks on test result.

### **2.6.1.2 TEST REPORT:**

The observations and tests results obtained during various tests shall be compiled and documented to produce Test reports by the Vendor. The Test reports shall be prepared & submitted for each equipment/ item and the system. The report shall contain the following information as a minimum:

- Unit/Equipment under Test
- Test conducted.
- Test procedures and expected test result.
- Test results.
- Remarks & comparison of tests results with the anticipated test result as given in test plans and reasons for deviations if any.

### **2.6.1.3 INSPECTION BY GAIL/ THIRD PARTY**

In addition to the above, GAIL and/ or any third party/agency (appointed by GAIL), reserve the right to inspect and test each equipments at manufacturing / supplier premises and at site during the installation & commissioning of the system. The inspection and testing shall include collection of samples, testing of components, sub-assemblies, produced units for verifying and testing their guaranteed performance & specifications.

### **2.7.1 TEST RUN:**

Upon conclusion of the site acceptance testing (SAT), integration & change over of operational traffic (if any) to new system, the bidder shall keep the **IP BASED EPABX SYSTEM** commissioned **for 15 days for “Test Run”**. If during the “Test run”, any defect / fault are noted in the system, the Vendor shall identify & rectify the same and provide the report, history of the fault to GAIL.

Ideally, during the “Test run”, no shutdown of the system due to failure of any module should happen. If the system fails to come up to the guaranteed performance, the Vendor, within a period of seven (7) days shall take any corrective measures & resubmit the system for another “Test run”. Again, if the system fails to reach the guaranteed performance after the second test run, the Owner shall be free to take any action as he deems fit against the Vendor and to bring the system to the guaranteed performance with the help of a third party at the expense of the Vendor.

### **2.7.2 COMMISSIONING:**

The **IP BASED EPABX SYSTEM** shall be considered to be commissioned and taken over, only after successful completion of Test run. However, the takeover by owner shall not be delayed for non completion of minor works and such jobs which do not affect the normal operation of the system, and such works/ jobs shall be completed by the vendor in accordance with the plan / schedule, which has been approved by the Engineer-In-charge. The date of successful completion of Test run shall be treated as the ‘Completion Date’ for such purpose as application of contractual provisions such as ‘Price reduction schedule for delayed completion’ etc.

### **2.7.3 SUPPLY OF SPARES:**

Vendor shall supply one lot of spare parts for complete system for immediate replacement at site. Detailed spare part list is included in the technical specifications of individual equipment/ system

2.7.1 Vendor shall guarantee the Owner in writing, regarding the continued supply of spare parts and / or AMC support over a period of 5 years from the date of completion of warranty period from the OEM for all the system, sub-system, equipment, etc. After this period if the vendor discontinues the production of the spare parts, then he shall give at least 12 months notice prior to such discontinuation so that Owner may order sufficient quantity of spares in one lot.

2.7.2 In the bid, the Vendor shall provide unit price of each Spare module/card, which shall be valid for the procurement of the spares for operation and maintenance in subsequent years.

### **2.8 TRAINING:**

2.8.1 It shall be explicitly understood that owner's personnel shall be fully associated during engineering, installation, testing and commissioning activities and this opportunity shall be taken by Vendor to impart on the job training in addition to on site trainings.

2.8.2 Vendor shall provide comprehensive documentation, course materials, manuals, literature etc. as required for proper training of owner's personnel at his own cost. After the completion of the course, all such materials shall become the property of GAIL.

2.8.3 **ON SITE TRAINING:** Immediately after commissioning of the system min 12 man-days training on "General functioning of IP BASED EPABX SYSTEM including card/module/sub-system wise details, system fault diagnosis / troubleshooting, upgradeability, add-on features etc" shall be given at site at the expense of the Vendor. Scope of on-site training should include the following as minimum:

- Complete IP EPABX system including call billing, Auto attendant & voice mail
- FCBC System, LAN/WAN system

The above trainings are to be provided by OEM Certified System Engineers having full knowledge of programming and maintenance of supplied equipment.

### **2.8.4 ADVANCED SYSTEM LEVEL TRAINING AT MANUFACTURERS PREMISES:**

Hands on training on advanced system level programming and maintenance of IP EPABX shall be given at manufacturer's premises for min 12 man-days covering the following:

- IP EPABX product family, complete hardware, software and technology details
- System Configurations, design considerations to meet specific requirements
- System Modification/ Up gradation / Internetworking
- Numbering schemes, routing, signalling
- Testing and diagnostics
- Value added services, Unified Communications
- Administrative functions (Backup, restore, Crash Recovery/ DR)

The above trainings are to be provided by OEM Certified System Engineers of offered IP EPABX System AT MANUFACTURES PREMISES having requisite infrastructure for providing such training .

2.8.5 **Periodic Training to GAIL engineers** Min 24 man-days on day-to-day operation, maintenance, system data-backup procedure, change of configuration, alteration of subscriber / trunk / operator facilities etc. shall be provided at site as per the following schedule:

- (i) Within first six months : 08 man days (refresher course)
- (ii) After one year : 08 mandays (Advanced system level training-II)

(iii) After one year and before completion of warranty period: 08 Mandays (Review)

## **2.9 Documentation:**

2.9.1 After the award of work, the vendor shall submit the following documents for complete system for every installation site for review and approval within 15 days:

- Equipment layout drawing.
- Power supply distribution and earthing arrangement.
- Electrical wiring diagrams for the system.
- Installation drawings with overall dimensions and necessary free spaces.
- Equipment and system Test plans as requested elsewhere in this section.
- Equipment schedule.
- One set manual for each supplied equipment / system, consisting of:
  - a) Detailed technical manual for each type of equipment containing functional diagrams and Description.
  - b) Installation Procedure
  - c) Commissioning Procedures
  - d) Operation Procedure
  - e) Troubleshooting & Maintenance Procedures.

**2.9.2** All the documents submitted by the vendor shall be published/ printed /saved in soft storage media (like: CD/DVD) bearing part/release/version/ revision number of OEM. Photo copied, scanned or any other form will not be acceptable.

2.9.3 On the completion of the project, Vendor shall provide As-Built Documents of the system for each site.

2.9.4 Any other document not specifically mentioned above but required for satisfactory implementation, operation and maintenance of the system.

**2.9.5 THE VENDOR SHALL PROVIDE ANY OTHER WORK NOT MENTIONED ABOVE, BUT REQUIRED FOR COMPLETING THE WORK IN ALL RESPECT TO THE SATISFACTION OF THE OWNER.**

## **2.10 ON SITE WARRANTY AND SUPPORT SERVICES:**

The system shall be guaranteed to give specified performance for a period of **min 24 (twenty-four) months** from the date of acceptance of the system by the owner. This warranty shall survive inspection of goods and acceptance of the system.

The details of services to be provided during warranty period shall include but not limited to the following for all supplied items under this project:

### **2.10.1 PREVENTIVE MAINTENANCE**

During warranty period vendor shall depute qualified service engineer (min 3 man days /per visit) at least once in every quarter for carrying out routine/ preventive maintenance of the system. If any problem is observed during such visits it should be rectified within 48 hours.

Preventive maintenance of the system should include following activities as minimum:

Opening of all system panels

Visual inspection of components, modules  
Check power supply unit  
Check earthing/ grounding  
Check ambience  
Check system logs, alarms and status displays  
Perform system backup, restore functions  
Perform system integrity test  
Perform system level programming and maintenance as per site requirement  
Verify speed path  
Verify subscriber status and conditions  
Perform testing of audio quality  
Perform testing of inter system connectivity  
Carry out repair service of any equipment by providing standby / replacement parts.

A detailed site visit report needs to be submitted to Engineer-in-charge prior to leaving the site.

## **2.10.2 TECHNICAL SUPPORT SERVICE**

### **2.10.2.1 ON-LINE SUPPORT**

This includes 24 x 7 (24 hours x 7 days a week) on line support for vendor supplied equipment. GAIL shall utilize this service by intimating the bidder of its unique customer ID in case of any contingency and Vendor in turn provide telephonic support. Depending upon the severity of the issue, engineer shall be sent by vendor to the site.

For providing online technical support, the necessary hardware and software shall be provided free of cost to GAIL, so as to directly access o the system from outside GAIL by the Vendor's technical support team.

### **2.10.2 .2 ON-SITE SUPPORT**

For the problems not resolved through above-mentioned On-line technical support service, the vendor shall provide on-site technical support all through out the warranty period of 24 (twenty four) months. For the same, vendor's service engineer/personnel capable of system level trouble-shooting shall be made available along with required tool, tackles & maintenance spares at GAIL locations to resolve the problem efficiently. Additionally the following shall also apply:

- i) During the warranty, the Vendor shall use his own instrument, spares, man-hour, communication facilities, hardware, software, materials, etc. for the rectification of any problem.
- ii) The "turnaround time" for the rectification of the problem shall not exceed **48 hours**. (Turnaround time: From the time of placement of first service call to Vendor's representative until the system is restored fully to the satisfaction of the Owner.)

### **2.10.2 .3 ADVANCE REPLACEMENT SERVICE**

Under "Advance Replacement" service, vendor should provide replacement of a defective Fields Replacement Unit (FRU) by an equivalent FRU upon request of replacement from GAIL. Using this service, the vendor from its warehouse/ factory will ship an equivalent unit (feature, function, fit compatible) **in maximum 30 days without** waiting for receipt of the defective module / part(s). The defective module / part(s) will be sent to vendor immediately.

### **2.10.3 DOCUMENTATION DELIVERY AND SOFTWARE UPDATION SERVICE**

Under Documentation delivery service bidder is required to provide engineering practices and Technical Bulletins, updates at free of cost. All the latest software updates for complete system are also required to be provided under warranty.

Any type of software up-gradation under warranty and under AMC, being carried out by the OEM which is necessarily to be incorporated in the supplied **IP BASED EPABX SYSTEM** for compatibility of the existing systems with future adds-on/ spare cards and facilities shall be carried out by the OEM/supplier free of cost to GAIL.

### **2.11 REPLACEMENT OF OLD SYSTEM:**

Replacement of existing system shall be carried out within minimum downtime of existing services. GAIL will make additional space for new IP BASED EPABX SYSTEM, for permanent placement / positioning and carrying out subsequent installation activities as per the methodology mentioned under this tender document.

All existing parts needs to completely decommissioned and shifted to designated stores for further disposal.

#### **2.11.1 BUYBACK/DISPOSAL OF OLD SYSTEMS:**

The vendor has to compulsorily buyback the old system after successful commissioning and deployment of New **IP BASED EPABX SYSTEM**.

The bidder shall buy back the old EPABX system(s) and associated items within three months of successful completion of Test Run of the new EPABX system(s) & associates items. The site-wise list of old EPABX systems is furnished at PART VIII of the tender document.

**Within three months** of successful completion of Test Run, the vendor will take-away the bought back items. The vendor shall be entirely responsible for lifting and transportation of these old items from the respective site of GAIL. GAIL shall not be responsible for payment of taxes, duties levies or any other expenses. The vendor shall also be responsible for obtaining statutory approval if any required for taking these items out of GAIL premises/country. If required, GAIL will issue necessary declaration as per request of the successful bidder as per record available.

The vendor and GAIL would follow the procedure mentioned below for the 'Buy Back' of old EPABX systems:

- i. The old equipment's shall be handed over to the vendor/contractor on 'as is where is basis'. The vendor/contractor is required to take away such materials out of GAIL immediately after handing over to them.
- ii. The vendor/contractor will not sell this old equipment's to any GAIL employee without written permission of HR Department-GAIL, to be obtained by GAIL employee(s). Even after permission is obtained by employee(s) from GAIL, the vendor/contractor is free to take decision whether to sell such item(s) to GAIL employee(s) or not.
- iii. The vendor/contractor will accept payment only by Cheque/Demand Draft for sale of old equipments to GAIL employee(s).
- iv. The vendor/contractor will maintain a separate record for such sales to GAIL employees and will make the same available as and when requested by GAIL.

The vendor shall follow the instructions, guidelines, rules, laws, regulations, etc of Government of India in respect of disposal of electronic wastes concerning & as applicable for the buy-back items.

## **2.12 POST WARRANTY AMC SERVICES**

2.12.1 Vendor shall also provide charges for three (3) years of comprehensive AMC to be executed on expiry of warranty of 2 years. This includes:

a) Wear & tear, spares & consumables and the corrective actions on the "Hardware", "Software" & "Firmware" of the all supplied systems (hardware and software);

b) 24 x 7 (24 hours x 7 days a week) round-the-clock technical support for problem diagnosis (through remote login & tele-conversation with GAIL personnel) for the system implemented through this work order.

2.12.2 The AMC charges quoted by the vendor shall include the cost of all spares, equipment, instruments, consumables & services including manpower, transportations of material, travel, lodging, insurance to take care of all preventive & breakdown maintenance activities during AMC period, as mentioned under Scope of AMC below.

**2.12.3 Scope of AMC:** Following systems are to be covered under AMC services

**"Complete IP based EPABX system hardware and software including**

Communication Servers

Media Gateway's, Peripheral shelves

All subscribers, trunk, network modules

All common and control boards including PSU

Associated system devices like management console, call billing system, voice mail, autoattendent system, MOH devices

2.12.4 All technical problems related to IP based EPABX and associated systems/equipment's covered under AMC will be prioritized into 3 severity categories:

**Critical** – Subscriber/Trunk Telephony Services affected due to problems in Core Servers / Media-Gateways. It is the highest level of problem. The vendor shall solve the problem on top priority.

**Major** – Loss of redundancy in critical common/control unit or failure in Communication facility. The vendor shall solve the problem within stipulated resolution time.

**Minor** – All other problems and issues not covered by previous categories.

2.12.5 The **allowed Resolution Times** for resolving the different kind of problems are as follows. Not meeting the same will attract penalty as per the Price Reduction Schedule (PRS) of AMC, mentioned in the tender document:

**Critical:** within 8 hours from lodge of complaint by GAIL with vendor  
**Major :** within 48 hours from lodge of complaint by GAIL with vendor  
**Minor :** within one week from lodge of complaint by GAIL with vendor

**2.12.6 Technical Support:** The vendor shall provide the following Technical Support Services under AMC as a minimum:

**a) Online Support:** The vendor shall extend services on 24 hours a day, 7 days a week and 365 days a year for the Online Service Support in following steps:

- GAIL shall log complaints, with basic information on nature of fault at designated contact details of the vendor. Case ID will be assigned by the vendor for the complaint and Customer Support Engineer (CSE) will attend to the complaints on phone. The vendor will provide Telephone number and e-mail id of the helpdesk.
- CSE will connect to GAIL's NMS for the IP based EPABX system(s) via modem or Internet Dongle or VPN (provisioned by the vendor) to further investigate the problem and for resolving the issue.

**b) On-site Support:**

For technical problems related to the IP based EPABX system & associated systems covered under AMC, depending on the severity / criticality / type of problem or if a problem not resolved through online support mentioned above, the vendor will depute its authorized Field Engineer to provide On-Site Support Services to GAIL for resolution of problem.

**c) Preventive Maintenance:**

In order to prevent future failures and discrepancies in the IP based EPABX system & associated system components, the vendor will carry out Preventive Maintenance & Inspection service at GAIL's Site once in every quarter. by vendor's authorized engineer for preventive maintenance & general check-up activity.

Payment for AMC on quarterly basis shall be made after each visit of once in 3 months after submission of bill along with visit report(s).

**d) Documentation Delivery Service and Software Updates**

The vendor will provide technical updates to GAIL on regular basis. These updates will include the information on the latest software & firmware releases and anti-virus updates. The IP based EPABX System's software / firmware & associated systems will be reviewed for upgrade to the latest available software and firmware releases including anti-virus updation. The upgrade will be carried out by the vendor or concerned OEM without any additional cost implication to GAIL. However, any outage which would be necessary for the upgrade will be arranged by GAIL.

**2.12.7** The vendor shall arrange for all spares, equipment, instruments, and consumables & services including manpower, transportations of material, travel, lodging, insurance to take care of all above preventive & breakdown maintenance activities during AMC period without any additional cost to GAIL.

**2.12.8** The vendor will provide the escalation matrix for various tiers (levels) for the technical support services.

**2.12.9** The vendor shall submit Service Reports for all Breakdown & Preventive maintenance activities and Documentation Delivery Service & Software Updates during AMC period. The same shall comprise of:



**a) Breakdown Service Report:**

This shall include minimum the following against all the calls logged with the vendor:

- Details of Problem & Chronology of its Resolution
- Time taken for resolution of problem
- Root Cause Analysis

**b) Quarterly Service Report:**

This shall include minimum the following with respect of AMC quarter:

- Summary of all the breakdown events with Problem Resolution time
- Summary of Site visits for Preventive maintenance
- Summary on Documentation Delivery Service and Software Updates

**2.12.10** If systems / subsystems are required to be taken out of GAIL office for repairing, then a standby system / subsystem of the similar configuration and quality acceptable to GAIL will be provided on returnable basis. The vendor will be responsible for transportation and delivery of systems/subsystems. Such hardware under repair should be returned, repaired up to the satisfaction of M/S GAIL within mutually agreed period.

**2.12.11** In case of failure in resolution of problems by the vendor within the stipulated duration, these will be attended through alternate agency at vendor's risk & cost.

**2.12.12 Other Terms & Conditions of AMC:**

1. The AMC shall commence on expiry of the warranty period on quoted rate. The AMC charges shall also be inclusive of applicable service tax. However, for AMC charges, any statutory variation in Service tax during the period of the contract shall be reimbursed at actual. No other extra charges shall be payable to the Vendor except the quoted rates for AMC during the period.

2. Vendor shall furnish a bank guarantee for 10% of AMC value with validity of 3 years as security against any failure by the vendor to support the system during the AMC period. This BG for three years is to be submitted before release of any AMC charges.

3. GAIL reserves its right to terminate AMC by giving 30 days prior notice to the vendor.

4. GAIL shall nominate an Engineer- In- Charge who shall be responsible for the subject service contract.

5. The vendor will give notice to GAIL for the Preventive Maintenance visit. If GAIL wish to postpone such a visit, the vendor, shall be notified of such decisions. A preventive maintenance visit can be combined with other maintenance activities.

6. The vendor will provide the new parts of OEM make against the replacement of defective unit. In case the new part can not be made available, then Refurbished/ used parts can be used at site on temporary basis in consultation with EIC.

7. The vendor shall not subcontract/ sublet the maintenance jobs/ services covered under this service contract to any outside agency other than respective OEM without prior permission of GAIL.

8. The vendor shall not be liable in any manner whatsoever in the event of the vendor being prevented or delayed to perform any obligation required to be performed by them under the contract due to conditions constituting force majeure which shall include but not be limited to acts of God, earth quake, war (declared or undeclared), revolts, riots, fire, floods, rebellions, explosions etc.

9. The AMC charges will be invoiced on quarterly basis.

10. Payment shall be made through e-payment at the expiry of each quarter and within 30 days from the date of receiving invoice & quarterly Service Report after considering PRS component (if any).

#### 11.0 Price Reduction Schedule (PRS) for AMC service:

$$\text{Quarterly Payment towards AMC} = \text{Quarterly Quoted AMC Charges} \times \left[ 1 - 80\% \left\{ \frac{\text{Cumulative Service Downtime in a Quarter [in Hour]}}{\text{Reporting Quarterly Duration [in hrs]}} \right\} \right]$$

**WHERE** Cumulative Service Downtime against technical problem related to all components of IP based EPABX System Commissioned in GAIL PATA covered under the AMC in a Quarter is the sum of the following or 100 hours whichever is lesser:

- Additional “Resolution Time” beyond 8 hours of individual “Critical” service complaints in a Quarter AND
- . Additional “Resolution Time” beyond 48 hours of individual “Major” service complaints in a Quarter AND
- . Additional “Resolution Time” beyond 168 hours of individual “Minor” service complaints in a Quarter

**(Note:** If Cumulative Service Downtime against technical problem related to all components of IP based EPABX System commissioned in GAIL PATA covered under the AMC in a Quarter exceeds 100 hours, the Quarterly Payment towards AMC will be 20% of Quarterly Quoted AMC Charges.)

Tender Document No : **GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]**  
Tender Subject : **UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED, PATA (UP)  
INDIA**

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## **PART –III**

### **GENERAL DESIGN GUIDELINES**

### **PART III: GENERAL DESIGN GUIDELINES**

#### **4.0 DESIGN GUIDELINES**

- 4.1 The equipment must be newly manufactured, free from all defects, manufacturing, material or otherwise. If any part/ component/ subsystem is found to be defective, the same shall be repaired/ replaced free of all costs to GAIL. The decision of GAIL for the acceptance of repaired component/ part etc. shall be final.
- 4.2 The system design shall be flexible enough to meet future expansion program up to the maximum capacity of each system and sub-system without deteriorating the performance of the system.
- 4.3 The system hardware/software shall not pose any problem due to change in date and time caused by events such as change over of millennium/century, leap year etc. in the normal functioning of the system.
- 4.4 Equipment should be able to work continuously in non air-conditioned environment without any degradation in the guaranteed performance.
- 4.5 The equipment shall have natural cooling arrangement, use of internal forced cooling is allowed for heat dissipation from rack enclosure with out causing any dust ingress.
- 4.6 The equipment and cable shall withstand all the vibrations imparted to the building and adjacent sites during any type of vehicle/train movements, nearby construction works, air conditioning/fan operation, DG set running etc.
- 4.7 To meet the overall requirement of the tender, the system shall be provided/equipped with all OEM supplied cables, connectors, hardware keys, hardware plug-ins, etc.
- 4.8 All equipments shall have sufficient number of alarms and supervisory indications and shall be provided with self-diagnostic facilities. All alarms, monitoring & diagnostic facilities shall be built-in. Suitable alarms shall be displayed on the front panel of the equipments for ease of maintenance. It shall be possible to transmit these indications, parameters to the maintenance/management platform/console.
- a. Indications shall be available on the front panel for system monitoring and easy fault-location.
  - b. All-important switches shall be provided with controls on the front panel with suitable safeguard to avoid accidental operation. Manual changeover should be performed by more than one sequential operating procedure to avoid accidental operation.
- 4.9 The equipment shall be compact and in composite construction and light weight. However, the mechanical design and construction of each card/unit shall be inherently robust and rigid under all conditions of operation, adjustment, replacement and storage. The actual dimensions and weight of the equipment shall be furnished by the manufacturer.
- 4.10 All equipments shall be immune to EMI and RFI interferences, generated by any nearby source and shall meet the latest international standards in this regard.

- 4.11 The equipments shall be capable of functioning with minimum maintenance and shall be preferred to have no requirement of any preventive maintenance.
- 4.12 All PCBs used shall be glass epoxy type and shall not chip owing to repeated soldering/ de-soldering. The PCBs shall not warp on any account.
- 4.13 All wiring-including field interconnection wiring shall be cabled and clamped to the chassis. The wiring shall follow standard color-code. All cables shall be provided with connectors matching to the cable used and shall have identification markings.
- 4.14 All connectors shall be reliable and of standard type to ensure failure free operation over long periods and under specified environmental conditions. All connectors and the cable used shall be of low loss type and suitably shielded.
- 4.15 Vendor to specify the total power requirement of the offered Telecom equipments for each site.
- 4.16 All components of EPABX systems Communication Server, Peripheral Shelf Remote Shelf's should ideally work on -48VDC supplied from FCBC. If any equipment requires different DC /AC power, it should be extended using suitable source / UPS/ converter designed for 24x7 operations. Scope of supply and cost of such unit if required should be included in the main EPABX system.
- If separate UPS is used for communication server, it should be meet/ exceed backup time of total system as specified in technical specification.
- 4.17 Proper ventilation/ air circulation must be provided to the entire system for heat dissipation.
- 4.19 The equipment construction should be such that it does not allow ingress or entry of rodents, insects, lizards and dust. For this, equipment should be suitably sealed from all sides, top and bottom.
- 4.20 All equipment sub-racks, housings shall be provided with antistatic wristbands.
- 4.21 The sub-rack and equipments shall have a terminal for its grounding / earthing.
- 4.22 The configuration of the system should be easily expandable by adding plug-in-units and modifying software settings.
- 4.23 The plug-in units shall be of hot swappable type to allow their removal/insertion while the equipment is in energized, running condition.
- 4.24 All sub-assemblies, switches and control circuit components of modules shall be so mounted as to permit their replacement without appreciable disturbance to other adjacent modules.
- 4.25 The removal or insertion of plug-in-units must not affect the existing traffic on other units.
- 4.26 Each sub-assembly, controls, switches, indicators etc shall be clearly marked with schematic reference to show their functions, so that it is identifiable from the layout diagram in the handbook.
- 4.27 Provision shall be made by means of mechanical and electrical interlocks and safety covers etc., so that operating and maintenance personnel are not exposed to harmful radiation and cannot come into accidental contact with dangerous voltages.

- 4.28 Safety covers shall be fitted over terminals to which dangerous voltages are applied. The words e.g., Danger, High Voltage etc., shall be suitably printed or engraved on the cover.
- 4.30 Each terminal block and individual tags shall be numbered suitably with clear identification code and shall correspond to the associated wiring drawings.
- 4.31 Suitable alarms shall be provided for identification of faults in the system and faulty units. The corrective measures at site shall involve replacement of faulty units/subsystems after monitoring the alarms.
- 4.33 The equipment shall be protected from damage due to a faulty condition or the operations of controls in the wrong sequence, by the provisions of fuses / circuit breakers, interlock circuits and similar safety devices. Fuses shall be mounted in an accessible position clearly labeled regarding their capacity and circuit position and shall be easily replaceable. Protection and isolation against transient voltages through power supply or any other higher voltages / current shall be provided.
- 4.35 The equipment shall have easy access for servicing and maintenance.
- 4.36 The supplied equipment shall meet the latest national and international safety and emissions standards.

## **5.0 GENERAL GUIDELINES:**

- 5.1 In general, specifications provided throughout this document shall apply. In case of conflict more stringent specifications shall override specifications given elsewhere and decision of the Owner/Engineer in all such cases shall be final.
- 5.2 As and when bugs found/determined in the software/firmware affecting the performance of the equipment, the vendor will provide free of cost the patches/firmware replacement or solution to resolve the problem. Modified documentation (hard copies and soft copies) pertaining to supplied items wherever applicable shall also be supplied free of cost.
- 5.3 Owner/Engineer-In-Charge reserves the right to modify the system requirements till such time the system is ready for final acceptance. Vendor shall undertake to meet the revised requirements without any financial implication to the Owner provided no additional equipments are required.
- 5.4 In case at the time of implementation there is any change in the system design & configuration to meet the owner's operational requirements, the vendor shall undertake all the activities such as design, manufacture, supply, Installation, etc. of additional equipment hardware and software for which additional financial implication, if any, shall be approved by the owner on the basis of sufficient details and justifications being provided by the vendor.
- 5.5 If during the course of execution of the work any discrepancy or inconsistency, error or omission in any of the provisions of the contract is discovered, the same shall be referred to the Owner/Engineer who shall give his decision in the matter and issue instruction directing the manner in which the work is to be carried out. The decision of the Owner/Engineer shall be final and conclusive and the Vendor shall carry out the work in accordance thereof.

## **5.6 MARKING, LABELING, TAGGING GUIDELINES**

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Supplied system should have clear and visible markings on all modules, cards, ports etc printed at the time manufacturing indicating the following:

Name of manufacturer  
Name of the module  
Part number/ Serial number  
Port name/number, Signal details etc

During commissioning and site acceptance tests following additional marking, labeling, tagging, Identifications shall be provided by the vendor as per site requirement:

Tagging of cables  
Tagging of connectors  
Labelling of system modules, port, distribution points

All tagging markings, labeling etc shall be carried out by using standard metallic (outdoor) / non-metallic (indoor) tags with engraved labeling, pre-printed self-laminated labels, pre-printed sleeves, ferrules, ID marker Ties etc as per best standard and practices of structured cabling.

All such markings should be in line with as built documents for quickly and accurate reference as required during system service and maintenance.

Use of inconsistent, temporary markings, marking with pens etc is not acceptable by GAIL.

## **PART- IV**

# **BIDDERS DATA REQUIREMENT FOR TECHNICAL EVALUATION**



## **PART –IV BIDDER’S DATA REQUIREMENT**

The Bidder shall furnish the following as a minimum as part of bid documents for technical evaluation of the bid. Non submission of these documents will lead to rejection of the bid:

- 6.1 The bidder shall furnish clause-wise compliance for Scope of Work, Special Conditions of Contract and Technical Specifications of Tender document.
- 6.2 The bidder Shall furnish all relevant documents required for compliance of BID Evaluation Criteria
- 6.3 The bidder shall furnish the information on source of supply of different equipments /accessories as per the **SOS form placed at Annexure-I.**
- 6.4 The bidder shall furnish details of bill of material, such as hardware units, software/firmware, functions, and quantity etc as per **Bill of Materials format Placed at Annexure-II).**

The above BOM shall be prepared site/location/system wise so as to deliver the required configurations as per tender specifications.

- 6.5 Make, models, specifications, configurations, quantity etc mentioned in the SOS and BOM format shall be filled only after completing design and engineering of offered solutions as per clause 2.2 of scope of work to meet GAIL’s specifications. Post tender modifications of these items are not permitted.

Bidder may offer more than one option for any item by filling separate SOS and BOQ form for each options (to be filled in for total system)

- 6.6 The bidder shall furnish the detailed schematic diagram of the offered solution, clearly specifying / depicting various functional modules and their inter-connections setup after carrying out detailed design and engineering of offered solutions as per clause 2.2 of scope of work.

Schematic diagram should clearly indicate the requisite configurations to meet tender specifications.

- 6.7 The bidder shall furnish the technical catalogue / brochure /datasheets for each equipment, boards, modules etc covering full technical & environmental specifications, principle of operation, design features, test and monitoring facilities, guaranteed performance data, power consumption, dimensional and mounting details, functional block diagrams, description of operation, procedure and facilities etc as a minimum.

- 6.8 The bidder shall furnish notarized copy of valid TEC approval for offered EPABX system

- 6.9 Bidder shall have to provide **site wise** Space & Power requirement for the offered system/equipment along with the bid. Requirement of space shall be indicated in proposed equipment layout / GA drawings. Similarly power requirement shall be indicated in the power budgeting / UPS/FCBC capacity planning data.

- 6.9 Bidder shall guarantee GAIL in writing, regarding the continued supply of spare parts and / or AMC support over a period of 5 years from the date of completion of warranty period from the OEM (s) of the following offered systems

- a. IP Based EPABX System
- b. Gigabit Fiber LAN Equipment’s

c. FCBC System

**In this regards, support letter from the above Manufacturer(s) needs to be furnished as per Annexure-III**

**6.10** Bidder shall furnish details of spares & consumable included for supply along with the main system for min 3 years trouble free operation (**As per Annexure IV**)

**6.11** Bidder shall furnish an undertaking from OEM of offered IP EPABX system confirming that the system is IPV6 ready and there shall be no additional cost implications for system up gradation for making the system IPV6 compliant.

**6.12** The bidder must specify list of redundant items / modules included in the hardware & software configuration of the system to be supplied along with technical bid

**7.0 PROOF OF CONCEPT (POC) OF OFFERED SOLUTION/EQUIPMENT**

To verify completeness of technical solution offered by the bidder for this tender, the bidder will provide Proof of Concept (PoC) without any cost implication to GAIL in presence of GAIL's representatives in line with the following. Not carrying out the PoC by the bidder will lead to rejection of their bid:

- 1) Proof of concept shall be in the form of a technical presentation by the bidders clearly explaining design concepts and selection of particular solution submitted in technical part along with demonstration of samples, equipment's etc as per technical specifications.
- 2) The PoC will be carried out as part of the technical evaluation of the bids before the opening of price bids. GAIL shall intimate the bidder 7 days in advance for undertaking PoC by the bidder.
- 3) The PoC shall be carried out at GAIL PATA and shall be completed within 1 day (inclusive of setup & demonstration) by each bidder.
- 4) During the PoC, the bidder shall clearly explain their technical offering/solution, submitted with the bid. An indicative PoC setup has been given in part VIII of technical document.
- 5) The PoC report, enlisting the observations made during PoC test and jointly signed by the representatives of GAIL & bidder, will be considered under the technical bid evaluation.
- 6) The PoC shall in no way absolve the successful bidder from his responsibility & obligations under the contract for the successful completion of the project.

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**ANNEXURE-I**

**SOURCE OF SUPPLY FORMAT**

S/n o	Equipment Name / Description	Make and Model	Place of Manufacturing	Manufactured by	Sourced from/ Supplied by	Name of Company / Organization responsible for Providing Support and Maintenance facilities for this system in India	
1	IP EPABX SYSTEM						
2	COMMUNICATION SERVERS						
3	CALL BILLING SYSTEM						
4	DESKTOP DIGITAL PHONE						
5	DESKTOP IP PHONES						
6	OFC CABLES						
7	LAN SWITCHES, ACCESS UNITS						
8	FCBC SYSTEMS						
9	UPS SYSTEM						
10	WORKSTATIONS PC						
11	FIBER MANAGEMENTN SYSTEM						
12	EQUIPMENT RACK						
13	OTHERS (Please Specify)						
13							
14							
15							
16							
17							
18							

(Signature, stamp of Authorized Person)

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**ANNEXURE-II**

**Format for detailed bill of materials**

**Site Name** (Eg QC LAB, SS-4, SS-1, D/S, SB-1, ADMIN)\_\_\_\_\_

<b>S. No.</b>	<b>Name of Hardware Module / Accessories</b>	<b>OEM Part Code</b>	<b>Function</b>	<b>HW/Software / Firmware/Version / Release</b>	<b>Quantity</b>	<b>Remarks (if any)</b>
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
.						
.						
.						
.						
.						
.						
N						

(Please use separate page for each site)

(Please use separate page for each option)

(Signature, stamp of Authorized Person)

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**ANNEXURE-III**

**CERTIFICATE FOR POST SALE SUPPORT**

No.

Date:

GAIL (India) Limited,  
Petrochemical Complex, Pata  
Dist: Auraiya, U.P. (India).

Subject: ( Name of the system ) System for Petrochemical Complex, Pata

Reference: Tender no.....

Dear Sir,

We, \_\_\_\_\_ (Manufacturers Name) \_\_\_\_\_, the OEM of \_\_\_\_\_ (Name of the system / model) \_\_\_\_\_, hereby certify that we shall support the following post sale services of our products / systems / equipments (in line with the tender requirement), which are offered under this tender, directly or through our authorized partners in India over a minimum period of 5 years from date of their supply to GAIL:

1. Supply of Spares;
2. Repairing & Return of Faulty parts / modules;
3. Technical Support

We confirm that we shall be bound by all commitments made hereby.

Yours faithfully,

Signature of Authorized Signatory

Date:

Name:

Place:

Designation:

Seal:

**Note:** This 'Certificate for Post Sales Support' should be on the letterhead of the OEM and should be signed by a person competent and having the authority / power of attorney to sign the document.

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**ANNEXURE-IV**

**DETAILS OF SPARES PARTS  
INCLUDED IN THE SCOPE OF SUPPLY  
FOR 3 YEARS TROUBLE FREE OPERATION OF THE  
OFFERED SYSTEM**

S. No.	Name of Hardware Module / Accessories	OEM Part Code	Function	Hardware Version / Release	Software / Firmware Version / Release	Quantity	Remarks (if any)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
.							
.							
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N							

(Signature, stamp of Authorized Person)

Bidder is further advised to furnish following details related to status of compliance of various standards, acts, rules & regulations related Health, Safety, and Environment to clarify following points:

- 1) Does your organization have an environment policy?
- 2) Does your organization certified to ISO14001, if so since when?
- 3) Does your organization use any environment friendly product in manufacturing /packing/distribution/other processes?
- 4) Please give details of any award received in the field of Health, Safety, and Environment.

**(Non-compliance of any of the above points shall not be considered as reason for rejection of the BID)**

## **PART-V**

### **TECHNICAL SPECIFICATIONS AND DRAWINGS**

**(Enclosed as separate document)**



## **PART- VI**

### **SPECIAL CONDITIONS OF CONTRACT (SCC)**

## PART VII

### SCHEDULE OF RATE

### **PART-VII SCHEDULE OF RATE**

PART A - SUPPLY					
Item No	Description	Unit	Rate	Qty	Total
1	Complete IP based EPABX System and Associated items	Lot		1	
2	Desktop Digital Telephone	Nos		34	
3	Desktop IP Phone	Nos		09	
4	Complete OFC Based LAN/WAN System	Lot		1	
5	Complete FCBC System	Lot		1	
6	UPS for Telecom Systems	Nos		3	
7	PC, Workstation, Management Console	Nos		2	
SUBTOTAL SUPPLY					
Taxes and Duties (For Supply Part)					
<b>A</b>	<b>TOTAL FOR SUPPLY PART</b>				

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PART B – WORKS AND SERVICES					
Item No	Description	Unit	Rate	Qty	Total
1	Complete works and services including installation, testing, FAT, SAT, Trail run, Training , documentations, Dismantling, Decommissioning of old system etc as per scope of work and technical specifications	LS		1	
2	Quarterly charges for Providing Post warranty Comprehensive AMC services for IP Based EPABX system for a period of three years after expiry of Warranty period.	LS		12	
SUBTOTAL WORKS					
Taxes and Duties (for Service Part)					
B	TOTAL FOR WORKS AND SERVICES				
GRAND TOTAL FOR COMPLTE ORDER (A)+(B)					

## PART VIII

### GUIDELINES FOR CONDUCTING POC

POC (PROOF OF CONCEPT) DETAILS SHALL BE PREPARED IN LINE WITH OUR TECHNICAL REQUIREMENT AND SPECIFIC SOLUTIONS OFFERED BY THE VENDOR. FOLLOWING SHOULD BE INCLUDED AS MINIMUM:

DESIGN CONSIDERATIONS AND SELECTION OF PARTICULAR SOLUTION SHALL BE CLEARLY EXPLAINED DURING POC.

SYSTEM CAPABILITIES, FEATURES, FUNCTIONS ETC. SHALL BE CLEARLY EXPLAINED BY REFERRING SAME BOQ AND HW /SW VERSION AS OFFERED IN THE TENDER CONSISTING OF 1+1 COMMUNUCATION SERVERS, MEDIA GATEWAYS, REMOTE SHELF INTERCONNECTED OVER LAN /WAN.

VENDOR HAS TO EXPLAIN SWITCHING CAPABILITY AND OTHER TECHNICAL FUNCTIONS COVERING THE FOLLOWING AS MINIMUM:

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**SYSTEM REDAUNDENCY**

100% IP CONFIGURATION WITH SERVER AND IP PHONES USING LAN/WAN NW

IP-TDM MIXED CONFIGURATION

NETWORKING CAPABILITES

IP TRUNKING CAPABILITY

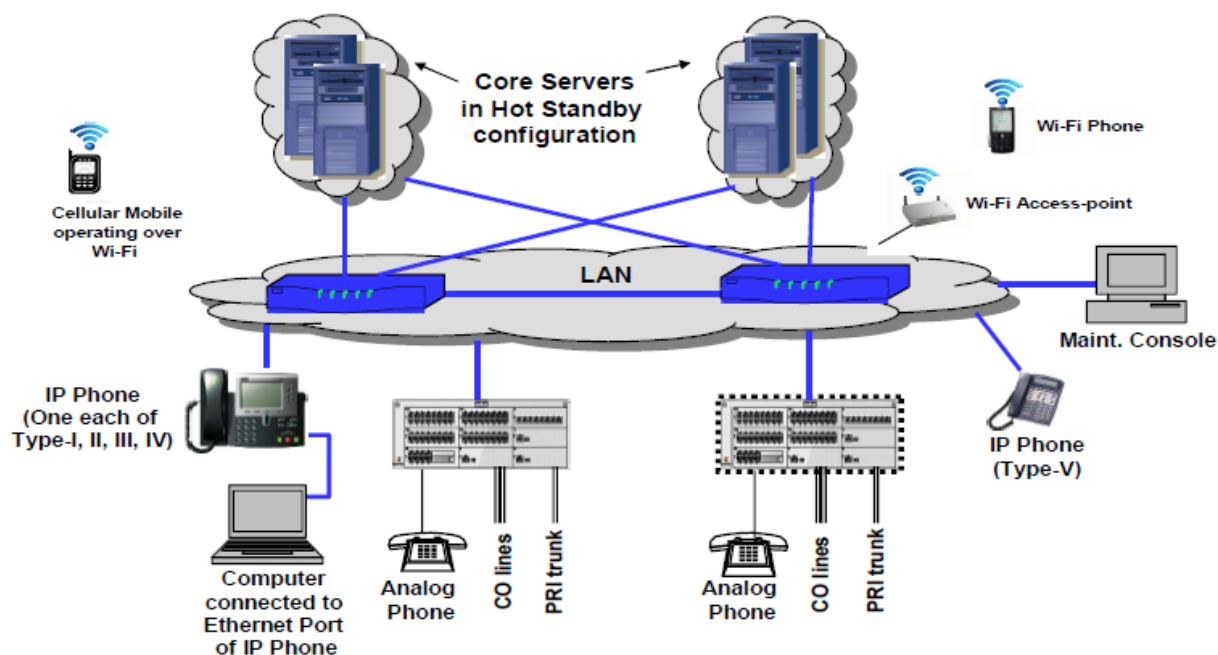
MANAGEMENT CAPABILITY

VOICE QUALITY USING DIFFERENT ENCODERS /COMPRESSION TECHNIQUES

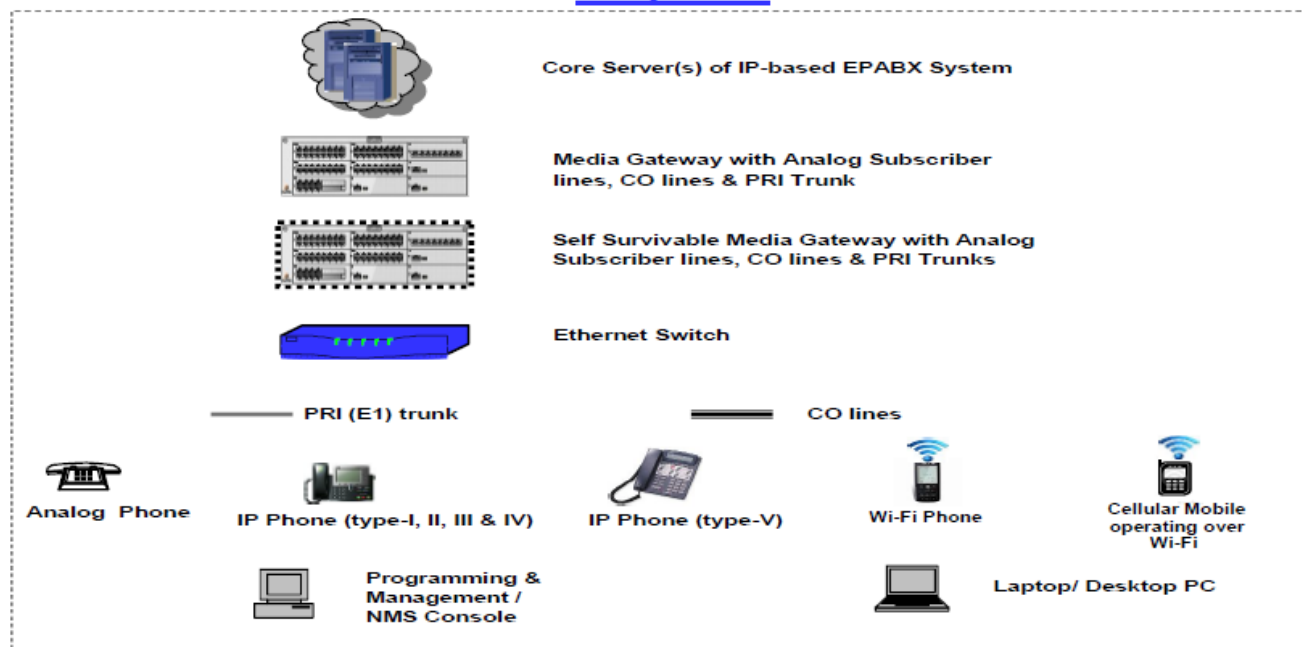
DEMONSTRATION OF OFFERRED DIGITAL PHONE AND IP PHONES

INDICATIVE SETUP FOR CONDUCTING POC IS ENCLOSED FOR REFERENCE.

### Indicative Setup for PoC



### Legends



DURING POC, VENDOR HAS TO CONVINCINGLY DEMONSTRATE THAT THE OFFERED SYSTEM SOLUTION IS CAPABLE OF DELIVERING ALL FEATURES, FUNCTIONS AND FACILITIES TO MEET TENDER SPECIFICATIONS.

## **PART IX**

### **DETAILS OF BUYBACK ITEMS**

#### **PART IX-DETAILS OF BUYBACK ITEMS**

After commissioning and handing over of new system to GAIL, vendor has to buyback the following items as it as where basis which includes the following

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Complete decommissioning of the equipment's

Handling loading and transportation of materials from GAIL's premises for further disposal and recycling

**Details of Buyback Lot:**

Complete EPABX Systems installed /equipped hardware and software's	-01 Lot
Loose/faulty/spare parts of EPABX systems	-01 Lot
Digital telephone instruments and power supply/line drivers	-01 Lot
HDSL/S.HDSL Modems used for EPABX interconnections	-01 Lot
Complete voice mail system hardware and software's	-01 Lot
Complete Call billing system hardware and software's	-01 Lot
Complete -48VDC FCBC systems excluding batteries	-01 Lot

Further details of Buyback items are enclosed as per Annexure – E

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**Annexure-E**

**Details of Make & Model of Old & Operational EPABX System and Other Hardwares**

S. No	Location	Year of Installation	Make	Model	Existing Capacity / Facilities			Remarks
					Analog Lines	Digital Lines	Trunk Lines	
1	SS#4	1998	Ericsson	MD110	165	16	30	Central Unit
2	SS#4	1998	Ericsson	MD110	125	16	90	remote self
3	SS#1	1998	Ericsson	MD110	365	16	30	remote self
4	LAB	1998	Ericsson	MD110	266	16		remote self
5	DOWNSTREAM	1998	Ericsson	MD110	269	16	60	remote self
6	TOWNSHIP	1998	Ericsson	MD110	333	16	30	remote self
7	TOWNSHIP	2002	ALCATEL	4400	1000	15	30	Central Unit
8	SB#1	2002	BPL/ALCATEL	4400	100	4	60	Central Unit

**DETAILS OF SPARE MODULES**

S/N	ITEM DETAILS	LOCATIONS				QTY	MAKE	Remark
		SS#4	SB#1	LAB	HDPE-2			
1	ALU2	1		1		2	ERICSSON	Loose Stores
2	DLU20	2				2	ERICSSON	Loose Stores
3	DLU30	1		1		2	ERICSSON	Loose Stores
4	DSU	1		3		4	ERICSSON	Loose Stores
5	ELU28	3				3	ERICSSON	Loose Stores
6	ELU29	4		1		5	ERICSSON	Loose Stores
7	FTU2	1				1	ERICSSON	Loose Stores
8	GJUG5	2				2	ERICSSON	Loose Stores
9	HUD5	6		1		7	ERICSSON	Loose Stores
10	ICU	1				1	ERICSSON	Loose Stores
11	ILU2	1				1	ERICSSON	Loose Stores
12	IPU	2				2	ERICSSON	Loose Stores
13	LPU5	6				6	ERICSSON	Loose Stores
14	LSU	1		1		2	ERICSSON	Loose Stores
15	NIU2	3				3	ERICSSON	Loose Stores
16	PU4DC	2		17		19	ERICSSON	Loose Stores
17	REU	5		1		6	ERICSSON	Loose Stores
18	RG5C	1				1	ERICSSON	Loose Stores
19	RG5DC			1		1	ERICSSON	Loose Stores
20	SIU	2				2	ERICSSON	Loose Stores
21	TLU23	3		3		6	ERICSSON	Loose Stores
22	TLU76	5		2		7	ERICSSON	Loose Stores
23	LINE REPEATER	11			1	12	ERICSSON	Loose Stores
24	ADAPTOR	4				4	ERICSSON	Loose Stores
25	LINE CARD				35	35	BPL	Loose Stores
26	EMTL				2	2	ALCATEL	Loose Stores
27	NDDI				2	2	ALCATEL	Loose Stores
28	PRA2				2	2	ALCATEL	Loose Stores
29	UA32				1	1	ALCATEL	Loose Stores

**DETAILS OF ASSOCIATED ITEMS**

S/N	Items details	Qty	Make	Year
1	Voice Mail System (HW+ SE)	1	Ericsson	2003
2	FCBC System (1+1) , DC Current ratings 10A/15A/50A	6	stat-con	1999
3	Modems(HDSL)	20	red/real gain	1999
4	UPS(2.2KVA)	5	vinitec	2003
5	Ditital phone	51	Ercisson	2001
6	Ditital phone	4	BPL	1999
7	Ditital phone	4	Alcatel	2002
8	Maintenance /console server	1	Dell	2003
9	Call billing server	1	Dell	2003



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**DETAILED  
TECHNICAL SPECIFICATIONS  
AND DRAWINGS**

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## **BOQ FOR COMPLETE SYSTEM**

<b>Item No</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>
1	Complete IP based EPABX System and Associated items	1	Lot
2	Desktop Digital Telephone	34	Nos
3	Desktop IP Phone	9	Nos
4	Complete OFC Based LAN/WAN System	1	Lot
5	Complete FCBC System	1	Lot
6	UPS for Telecom Systems	3	Nos
7	PC, Workstation, Management Console	2	Nos

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**SECTION- I**

**TECHNICAL SPECIFICATIONS  
OF COMPLETE IP BASED EPABX SYSTEM AND  
ASSOCIATED ITEMS**

<b>Item No</b>	<b>Description</b>	<b>Unit</b>	<b>Qtty</b>
1	Complete IP based EPABX System and Associated items	1	Lot

# CONFIGURATION AND DETAILED BOQ FOR COMPLETE EPABX SYSTEM AND ASSOCIATED ITEMS

S/no	Description of Materials	Location Wise Details						
1	IP EPABX Locations	SS-4	QC-L	SS-1	D/S	ADM	SB-1	Total
2	Role (M=Main Unit, R= Remote Unit)	R	M	R	R	R	R	6
3	IP Communication Servers ( in 1+1 dual and hot redundancy)	0	2	0	0	0	0	2
4	IP EPABX Locations with self-survivability	1	0	1	1	1	1	5
5	IP EPABX Locations without self-survivability	0	1	0	0	0	0	1
6	Equipped Analog Ports with dual CLI (FSK/PSK or DTMF) to display name & number	240	360	552	408	264	264	2088
7	Minimum Wired Capacity for Analog Ports	360	480	672	528	384	384	2808
8	Minimum Shelf Capacity (for Analog ports)	360	480	672	528	384	384	2808
9	42 U 19" Rack for IP EPABX, FCBC, OFC, LAN/WAN Other HW	2	2	2	1	1	1	9
10	Equipped Digital Extension Port	24	24	24	24	24	24	144
11	IP Link within same EPABX system (min no of full duplex voice channels)	60	60	60	60	60	60	360
12	IP Trunk with other IP-EPABX (min no of full duplex voice channels)	0	60	0	0	0	0	60
13	Minimum number of 10/100 Mbps Network Ports per Media Gateway	2	2	2	2	2	2	12
14	Equipped PRI-TRUNKS	8	4	2	2	0	2	18
15	IP Soft Phone SW + User License (min)	Min 20 user license						20
16	Desktop Digital Operator Console for complete system	0	0	0	0	2	0	2
17	PC based operator Console (Application SW only) for complete system	0	0	0	0	1	0	1
18	CALL Billing Server (Application SW only) for complete system	0	0	0	0	1	0	1
19	Integrated Auto Attendant System (In skin or PC/ Server based) for complete system	0	0	0	0	1	0	1
20	Integrated Voice Mail System (In skin or PC/Server based) for complete system	0	0	0	0	1	0	1
21	GUI based NMS for complete EPABX System	0	0	0	0	1	0	1
22	Analog PSTN Interface Ports (CO) with CLI Support	16	0	0	0	0	0	16
23	Music On Hold device with *.MP3, *.wav support (in addition to inbuilt MOH)	1	1	1	1	1	1	6
24	MDF 2000 Pair with krone module for total wired capacity (ports + trunks)	1	1	1	1	1	1	6
25	Installation Material Complete Lot	1	1	1	1	1	1	6
26	<b>Mandatory Spare modules of IP -EPABX System to be included and supplied along with main EPABX system</b>							
26.1	Analog line cards (min number of ports)	240	0	0	0	0	0	240
26.2	Digital Line Card (min number of ports)	48	0	0	0	0	0	48
26.3	IP Communication Server ( in 1+0 Configuration)	1	0	0	0	0	0	1
26.4	CPU/control board(s) for self-survivability (at least one of each type)	2	0	0	0	0	0	2
26.5	PSTN Interface Board	1	0	0	0	0	0	1
26.6	Other System modules/ boards which are field replaceable, separable and identifiable physical entities of IP -EPABX System (at least one of each type)	8	0	0	0	0	0	8

## **1.0 DETAILED TECHNICAL SPECIFICATION OF IP BASED EPABX SYSTEM AND ASSOCIATED ITEMS**

- A) **ENVIRONMENTAL CONDITIONS:** The offered IP based EPABX system shall be capable of maintaining its guaranteed performance when operating continuously round-the-clock under the following environmental conditions.

Operational Temperature Range	+5 °C to +35 °C or better
Storage	0 °C to +60 °C or better
Humidity	20% to 80% without condensation.
Shock and vibration	The equipment shall withstand transportation & handling by air sea & road under packed conditions
Electro Magnetic	As required for electronic equipment working in vicinity of HF/VHF/UHF systems

- B) **TEC APPROVAL:** The offered model of IP based EPABX system should have approval from TEC for interfacing with PSTN. In this regard, duly notarized copy of TEC certificate is required be submitted with the un-priced bid document. This TEC certificate should be valid for minimum period of six months from bid due date.

The offered IP based EPABX system shall conform to the latest editions of standards like CCITT, CCIR, BS, IEC, IEEE, EIA, IS etc. and shall meet the following as a minimum:

### **1.1 SYSTEM ARCHITECTURE:**

- 1.1.1 The IP based EPABX system shall be built around a server platform having CPU controller of following configuration

Min 2 GHz multi core commercial microprocessor,  
Min 4 GB RAM  
Min 250 GB Hard Disk /Flash disk/SSD Storage supporting (eSATA/ Raid 1)  
USB/Flash/ card/portable media Port  
Min 2x Gigabit Ethernet port supporting IPV4 and IPV6

The above configuration should be fully duplicated at Central Unit (Main Location) along with redundant power supply module.

- 1.1.2 The IP based EPABX system should be stored software / program controlled having multitasking operating system. The EPABX system software must be provided adequate protection from possible virus, worm and trojan infestation.
- 1.1.3 The IP based EPABX system should boot from Flash RAM/Flash Disk/Hard disk as per predefined / user selectable boot sequence. During start up, it should be possible to interrupt a predefined boot sequence to perform maintenance and diagnostic operations through a command line interface.
- 1.1.4 It should be possible to take system backups in Flash RAM / Flash Disk / Hard disks/CD/DVD automatically /manually/predefined way.
- 1.1.5 Software Applications, CPU, Memory & Storage of offered communication servers shall be sufficient to deliver the present configuration as well as future system upgradeability upto 10,000 ports including addition of new sites/ media gateways connected via LAN/WAN network.
- 1.1.6 The IP based EPABX system should have fully non-blocking architecture at all levels like System processing, Switching fabric & other resources like DTMF receivers, R2 Receivers.
- 1.1.7 The IP based EPABX system shall be designed with IP at the core, allowing fully distributed IP solutions across data networks. The offered system must be fully IPV4 complaint at the time of delivery at site.
- 1.1.8 The IP based EPABX system must be IPV6 ready without any cost implications for system up gradations for making the system IPV6 compliant. In this regards an undertaking from OEM of IP EPABX system needs to be submitted along with technical bid.
- 1.1.9 The IP based EPABX shall support following traditional TDM or mixed IP-TDM or full 100% IP configurations on the same platform using same loaded software and licenses:
- (1) IP Communication Devices like IP Phones, Mobile IP Phones, multimedia PCs, SIP phones, Soft Phone or H.323 terminal devices etc.
  - (2) Legacy TDM communication devices (Digital and analog 2 Wire telephone instruments with caller-id (FSK or DTMF), Fax, modems, ISDN Phones etc

(3) Wireless/ Mobility/ Limited mobility in local loop like, DECT, VoWLAN, WiFi

(4) Dual mode Fixed Mobile Convenience (WiFi/ Cellular)

(5) Analogue Digital and IP Trunking : CO, E&M , E1/ ISDN- PRI and SIP/IP

(6) Digital Phones & Analogue Phones directly connected to the EPABX system shall have smooth & trouble-free operation using standard 2-wire telephone cable with minimum length of **800** meter and **5Km** respectively from EPABX system.

1.1.10 The IP based EPABX system should be based on universal port architecture and modular in design to enable seamless growth of subscriber & trunk interfaces by adding necessary cards/sub racks as and when required. System should not impose any restriction in terms of slots usage for a particular functional benefit.

1.1.11 The IP based EPABX system should support at least following voice encoding standards:

(i) G.711 (iii) G.729/A/B (iv) G.722 wideband

1.1.12 The IP based EPABX call switching for internal calls (i.e., limited to a single location) should be based on the G.711 uncompressed PCM standard, but WAN calls outside the location should use the G.723.1 or G.729/A/B compression algorithm.

1.1.12 The IP based EPABX system must support Network Time Protocol to synchronize the system data/time of network devices.

1.1.13 The IP based EPABX system should be suitable to accommodate both Decadic Pulse (DP) and DTMF telephones. The system should support outgoing DTMF transmission even from Digital phones.

1.1.14 The IP based EPABX system should use CAC (Call Admission Control) mechanisms to optimize the usage of the bandwidth in the WAN for multi-site configurations.

1.1.15 The voice and signalling frames in the IP based EPABX system should be marked (tagged) in order to be recognized. The standards of marking supported will be: Layer 2: IEEE 802.1p/Q and Layer 3: TOS / DiffServ

#### **1.1.16 VoIP Support:**

- a. The IP based EPABX system should support VOIP solutions as an integral part of the system. No separate/dedicated hardware unit/module shall be required for providing telephone services for IP phones. It also should not involve any dedicated external gateways, routers etc for VoIP support.
- b. The IP based EPABX system should be fully compliant to VOIP standards like H.323/ SIP (Session Initiation Protocol).
- c. The SIP proxy, SIP registrar should be inbuilt in the system and should support any SIP compliant hard phones or soft phones.
- d. The IP based EPABX system should support the QOS features for the VOIP implementation.
- e. The system must support Echo Cancellation mechanism in IP Telephony to improve voice quality.
- f. When a Desktop PC is connected behind an IP phone (on the same LAN switch port), the VLAN policy of VoIP interfaces should be configured by MAC address. In this way, the default VLAN (called native VLAN) of the Switch is applied to the PC. Explicit VLAN tagging from IP Phone is not necessary.
- g. If the Switch is not able to use VLAN by MAC address, the IP phone must explicitly tag and use IEEE 802.1q (DHCP, TFTP, signalling and voice are tagged) and the default VLAN value for the frames sent by the PC is dynamically assigned by the Switch. The explicit tag is managed from the IP Phone.
- h. The IP based EPABX system should be able to work on any industry standard based IP network infrastructure.
- i. The IP based EPABX system should be designed to provide high uptime of 99.99%.

#### **1.2 System Survivability:**

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- 1.2.11 The IP based EPABX system should offer maximum availability/uptime along with hot standby configuration for its common & critical control units. In the event of significant fault in the critical resource elements/units/modules of EPABX system, the call control processing & management function shall automatically switch-over to an alternate or redundant control unit without any disruption to on-going traffic and also without any degradation of EPABX performance.
- 1.2.12 All critical resource elements of IP based EPABX system (i.e. Call server, Processor, Hard disks, RAM, data bases, IP interfaces, DSP resources, Clocking sources, Signalling and Tone generators, all the IO ports - Serial and Ethernet TCP/IP port, Power supplies, Ring generators, DTMF receivers, Tone detectors etc.) must be redundant and in a hot-standby configuration without any single point of failure. The bidder must specify list of redundant items / modules included in the hardware & software configuration of the system to be supplied along with technical bid.
- 1.2.13 The control unit/ server (hardware & software) of IP based EPABX system should have physically duplicated configuration for its control processor, memory & power-supply module without any single point of failure. It should also conform to the model of complete "mirroring" of the information (both static and dynamic data.) as used in most computer systems.
- 1.2.14 There should be redundancy in the LAN segment involving the active and standby control units / servers through utilization of redundant LAN ports over a campus wide carrier class LAN with OFC backbone. The specification of this LAN Network is mentioned elsewhere in Technical Specification section of tender document.
- 1.2.15 The standby server should always be in sync (database) with the active server without any need of manual configuration & administration.
- 1.2.16** These active-standby servers should provide automatic failover of call processing of IP based EPABX system in such a manner that if one active server fails the standby server should be able to take the complete load of the calls automatically (without any manual intervention) & without dropping any active calls.
- 1.2.17 The Management Platform of IP based EPABX system must provide a backup mechanism for all critical system information in manual and an automatic/scheduled archival and a Disaster Recovery /System Restore mechanism.
- 1.2.18 Addition / replacement of cards in IP based EPABX system shall be hot swappable (i.e. in power on condition) without affecting the function of other modules/units of the system.
- 1.2.19 The IP based EPABX system should be able to restart automatically & resume its normal operation without human intervention when power supply to the EPABX system is resumed after complete power failure.

### **1.3 Security Provisions:**

- 1.3.11 System, while communicating with its associated components or / and IP based system over IP link (LAN/WAN), shall support the encryption of all IP packets with advanced encryption mechanism like: AES.
- 1.3.12 For the purpose of access over IP network, system should only allow secured access mechanism like SSH, HTTPS, SNMP.
- 1.3.13 Provision shall be available to bar unauthorized user to connect to the system.
- 1.3.14 Provision shall be available to protect the system against various, malwares, and network-based attacks like broadcast storms or denial of service (DOS) attacks.

### **1.4 System Features:**

- 1.4.11 The IP based EPABX system should function as Local as well as Transit switch capable of switching and routing of voice, data, video and images without any delay, degradation and blocking of user traffic.
- 1.4.12 The IP based EPABX system shall provide field programmable, flexible & user defined numbering scheme. The IP based EPABX should be suitable for up to 8-digit extension numbering scheme. This numbering scheme should be flexible and freely programmable (ie any number can be programmed in any board of main system or remote gateways). System should also allow mixed numbering scheme.

- 1.4.13 The IP based EPABX system should support automatic route selection to route the calls based on user definable priorities. This service will be transparent for users and irrespective of the physical carrier connections.

#### **1.4.14 Integrated Auto attendant and Voice mail System**

The IP based EPABX shall be equipped with Automatic Attendant application, which shall automate handling of incoming calls. The system shall answer the incoming call & guide the caller through a high quality voice guides for various options like to choose extension, operator, or directory service. The call shall be automatically routed to the destination. In case of non-response from the caller's end, the call will automatically flow over to the operator, after a pre-set delay.

Auto-attended system should be able to answer minimum 8 incoming calls simultaneously and place callers on hold, play inbuilt music on hold and inform them of their position in the holding queue. The switchover from night message to daytime message must be automatic.

**Voice Mail System:** The IP based EPABX shall be equipped with Voice mail System to route, record, store and playback voice mail messages depending on line condition or user requirement.

Details specification of Auto attendant and Voice Mail System is mentioned elsewhere in the tender document.

All software's, firmware and applications of Auto Attendant and Voice mail system must of same OEM /or certified by OEM of Offered IP EPABX system for compatibility with respect to hardware, software, features and functions of offered IP EPABX server platform and its associated applications.

In addition to the above offered solution should support future upgradability to Unified Communications for mail, video and mobile voice and data communication.

- 1.4.15 The IP based EPABX system shall have provision of automatic line testing. The system shall also have provision of automatically identifying and isolating the faulty trunks and the trunks connected to faulty media. For equipped E-1/PRI trunk, the EPABX system shall also automatically detect line fault conditions like: LOS, AIS etc of connecting E-1 (G.703) link/media and accordingly, isolate the connected E-1/PRI trunk port from call routing. Once the faulty media / line problem gets resolved, isolated analog & digital trunks / junction shall automatically become operational.
- 1.4.16 The IP based EPABX system should be equipped with Call Billing System based on Microsoft windows (Vista/7) platform for complete recording of Internal, External and Network calls to and generate various types of traffic reports such as STD / ISD / Local calls made from an Extension. Details specifications of Call billing system are mentioned elsewhere in the tender document.
- 1.4.17 Digital or IP phone user should be able to search through the directory and dial by name. This directory should be synchronized with central organization wide directory using LDAP. The phone user should also be able to see the list of last 20 missed calls and dialled numbers

#### **1.5 System Management:**

- 1.5.1 The IP based EPABX system shall be field programmable using PC/Server based Programming & Maintenance system for setting / modifying all the system, user, trunk, operator parameters & features. The access control for system management operation shall be through password protection and must provide Role Based Account Management to define different levels of administrator access depending on specific functional responsibilities as mentioned below:

User : For viewing purpose only

Operator: For view and modify station/ trunk/ network features

Owner : For view and Modify all system level setting configuration

Vendor shall install & configure the PC/Work station with necessary software, firmware & hardware to function as PC based programming & maintenance system of offered EPABX system. The same desktop PC shall also be used for Call Billing System wherever required. Hence, both Programming & Maintenance and Call Billing operations must be possible simultaneously from one desktop PC platform using single Ethernet interface.

**1.5.2 Programming & Management:** System console should also support programming and maintenance through following applications:

1) Windows based GUI /Application software over LAN/WAN/VPN.

2) Browser based Http/Https access over LAN/WAN/VPN

3) SNMP over LAN/WAN/VPN

4) User friendly interactive Command line interface using Telnet/Terminal SW OR

HyperTerminal



**1.5.3** The management platform must provide a user friendly GUI (Graphical User Interface) for the following tasks/operations:

**1.5.4 Configuration and Programming** of services, users, categories and all system parameters and features. This module must provide centralized management in local or remote environments of a single system or a network. The network manager will be able to quickly and easily edit, create or delete any network object by the use of import/export functions and multiple operations.

**1.5.5 Faults and Alarms Management:** It shall have the provision for instant fault information, provision of automatically identifying and isolating faulty extensions & trunks and capability for malicious call tracing. It should also manage all the incidents and generate event/alarms reports informing date, hour & severity level with colour indication according to the severity level of the alarm. This module must be able to centralize the alarms and events of the total system (including remote units if any).

**1.5.6 Accounting of all calls generated** by the users including cost, date, hour. Must provide different options to group the monitoring of the calls (cost centre, extension number, trunk, user, city/area associated to dialled numbers). EPABX system should have buffer of last 30 days call details in case of Call billing system/ management system failed.

**1.5.7 Network Topology Layout:** The management system should provide a topological view of the telecommunications system in graphical form such as central EPABX, remote unit(s) and connectivity.

**1.5.6 Security:** All management traffic between the remote console/session and the control & management system/ unit must be encrypted for necessary system data security.

**1.5.7 Remote Access:** The IP based EPABX system shall have the provision of remote monitoring, programming & maintenance of EPABX system. This remote monitoring, programming & maintenance of IP based EPABX system from outside by the vendor shall be possible by accessing the system through INTERNET OR DIRECT dial-up modem connection.

**1.6 REMOTE UNITS:** The Central Unit of IP based EPABX system shall support provisioning, operation & management of Remote Unit(s) at different locations. The Remote Unit shall meet the following as a minimum:

**1.6.1** The Remote Unit shall be an integral part/unit of central IP based EPABX system. The integrating link/interface between the central EPABX system & Remote unit shall be an IP link (over LAN/WAN).

**1.6.2** All management functions like: System Configuration, Programming, Fault/Alarm management, and System database backup, Accounting/Logging of traffic/calls etc. for the connected Remote units shall be provided remotely from the central EPABX system.

**1.6.3** The Remote unit shall provide all features & facilities as those of central IP based EPABX system without the mandatory provision of redundancy of its common & control unit(s).

**1.6.4** The Remote Units shall provide following types of inter-office/unit both-way communications in addition to normal intra-office/unit communication:

- Between central EPABX system and Remote unit over redundant IP Link
- Inter Remote units (say between location-A & location-B) over TDM and/or IP trunk
- Inter Remote units (say between location-A & location-B) via central EPABX system over TDM and or IP trunk
- Between Remote unit and other EPABX system (other than central EPABX) over TDM link
- Between Remote unit and other IP EPABX system over IP links (other than central EPABX and running on same IP trunking protocol )

**1.6.5** Remote unit shall support survival mechanisms that allow them to maintain 100% of the telephony services for their user / trunk interfaces without any degradation in the intra & inter unit calls/traffic over available media / trunks, in case of failure in IP connectivity with central EPABX system for a minimum duration of 30 days. Once the IP connectivity between remote unit & central EPABX system is restored back, the remote unit shall work with central EPABX system.

**1.6.6** The Remote unit should be able to restart, reboot automatically & shall provide 100% of telephony service as mentioned above without human intervention when the input power supply to the remote unit is resumed after complete power failure, even under the failure of IP connectivity with central EPABX system.

**1.6.7** All components, modules, sub-systems of a Remote unit shall be able to operate in the input DC voltage range from -42

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to -54 VDC supply (<5-25 Amp @ 48 VDC).

1.6.8 Basic building blocks (i.e Media Gateway, Control boards, switch, power supply units, peripheral boards etc) of all Remote units must be identical and interchangeable in terms of make, model, hardware and software version.

1.6.9 Each media gateway used for building a Remote unit of required configuration shall provide following facilities as minimum

- Redundant power supply unit
- Redundant 10/100 Mbps LAN ports
- Min 8 Universal slots for peripherals boards (Analog, Digital line and trunks)
- Min 1 Optional Control unit for self-survivability (as per site requirement).

**1.7 INTER-OPERABILITY WITH OTHER EPABX SYSTEMS:**

1.7.1 The IP based EPABX system should be able to inter-connect with GAIL's existing Alcatel, Coral, Tadiran, Ericsson, Siemens, Avaya EPABX systems through different types of Subscriber lines, Junctions, Analog, Digital and Compatible SIP/IP Trunks.

1.7.2 The IP based EPABX system shall work seamlessly in multi-vendor (Q-sig compliant) EPABX network environment with connectivity to PSTN. The Exchange shall support Q-Sig on PRI / BRI and shall be suitable of being networked with the existing ISDN EPABX systems with feature transparency.

1.7.3 **IP Trunking:** Offered IP Based EPABX system should be capable of providing seamless IP trunking with existing IP EPABX systems (equipped with IP /SIP trunking module) connected over LAN/WAN/ VLAN and VPN/SVPN over public Data Network

1.7.4 **Input Power:** All modules/Systems/Sub systems of the IP based EPABX system should operate in the input DC voltage range from -44 to -54 VDC supply provided from proposed SMPS based FCBC system including the following:

- Communication Servers
- Media Gateway (Peripheral Shelf)
- Remote Shelf consisting of media gateway and control unit for shelf survivability

IP based EPABX system should be equipped and capable of taking DC power from at least two different power sources. Each Shelf, Sub rack, media gateways (having same backplane for mounting system or peripheral board) shall be equipment with at least two different power supply modules.

Any other system peripherals which require different supply other than -48VDC must be connected using suitable DC/DC converters designed to operate on round the clock basis. Use of AC/DC Adapters etc is not acceptable for technical reasons.

AC voltage range from 180 to 270 VAC (50 Hz) through supplied UPS is proposed for following devices

- PC Work stations (Management Console, Voice Mail, Auto attendant, Call Billing Server)
- Communication Servers (As an alternate option to DC input)

**1.7.5 INTERFACING FACILITIES:** The IP based EPABX system shall be able to provide following interfacing facilities:

a. All the Analog & Digital extensions should operate on two wires only.

b. The exchange must support following trunk interfaces/protocols:

- i) Analog: E&M (2W), E&M (4W), DC Loop signalling, Decadic, DTMF Signalling, Analog lines in Ring down mode.
- ii) ISDN-PRI, R2MFC, CEPT (programmable for either E1 or PRI) Trunk.
- iii) QSIG compliant.
- iv) ISDN-PRI trunks & BRI (Subscriber/Trunk)

- v) All the common Signalling Standards for PSTN connections
- vi) LAN/Ethernet, TCP-IP over IPv4 (interface should be IPv6 ready)
- vii) E1 (G.703, Balance)
- viii) Shall support VoIP phones and VoIP trunks without needing external Server/gateway/other device

**1.8 Telephony Facilities:** The IP based EPABX shall provide following telephony facilities as a minimum:

- i. Operator Console connectivity
- ii. Auto-attendant facility for DID through integrated auto-attended system
- iii. FSK-PSK or DTMF dual Caller Line Identification (CLI) for all Digital , Analog subscribers to display name and number of caller.
- iv. Caller Line Identification for All Analogue/digital / IP trunks
- v. User programmable Station groups like: Call Pickup, Hunt on Rotation, Emergency call, parallel ringing
- vi. Connected Line identification to display name and number of connected line after dialling.
- vii. 3-Party Conference , progressive conferencing with any combination of subscriber and trunks
- viii. HOT line service
- ix. Direct inward dialling (DID) through C.O lines
- x. In-built tone or voice guide based announcement facility with distinctive tone or good voice quality for (i) incoming trunks / PSTN calls. (ii) Extension status /code fault conditions, (iii) no answer conditions (iv) Feature activation/deactivation conditions (v) Supervised call routing etc  
  
For each line condition the system should generate audio tone and / or corresponding voice guide to explain the particular line conditions / available options to user  
Example: If the called number is busy  
Exchange will first give a busy tone and / or play the corresponding voice guide as “ The called number is busy, please press #1 to call back, #2 to leave message (to voice mail) or #3 to camp on”
- xi. Music on hold: The IP based EPABX System should provide following type of Music on hold
  - In-built Music on Hold with melodious music having high audio quality
  - External Music on hold with melodious music having high audio quality, audio level selection, recording / changing of MOH using PC/USB interface. Music on hold should support most popular digital audio format like \*.wav, \*.mp3 etc. Each site should be equipped with external MOH device in addition to internal MOH.
- xii. User Programmable Feature and Service class for Extensions & Trunks.
- xiii. Area Code Restriction
- xiv. Abbreviated Dialling.
- xv. Mixed Mode dialling (DTMF / Pulse interchangeability).
- xvi. Discriminative ringing for internal calls, junction/trunk calls, auto call back, wake up service and emergency reporting service
- xvii. Call Parking.
- xviii. Call waiting.

- xix. Line lockout
- xx. Automatic Trunk Route selection on trunk overflow & fault
- xxi. Night service mode
- xxii. Paging interface.
- xxiii. Boss-Secretary grouping
- xxiv. Malicious call trace.

1.9 **Extension Service Features:** The IP based EPABX system should provide following Extension service features:

- i) Direct Outward Dialling
- ii) Extension to extension calling
- iii) Auto /manual Call Back on busy
- iv) User, System defined conditional Call Forwarding (on Busy, No Answer, all call with user/ system defined time)
- v) Call Forwarding Cancel
- vi) Call Transfer
- vii) Direct Call Pick up
- viii) Group call pickup
- ix) Do not Disturb
- x) Pad lock facility or STD/ISD locking and shall not restrict local outgoing & intercom calls.
- xi) Operator call
- xii) Operator assisted calling
- xiii) Add on Conference
- xiv) Station camp on
- xv) Trunk camp on
- xvi) Executive override with and without tone indication
- xvii) Last Caller Re-Dial after no answer /hung up by caller (different than Last Called Number Re-Dialled)
- xviii) One Number Service – Parallel ringing
- xix) Class of service timing (day/night/holiday)
- xx) Broker service

1.10 **Hardware configuration:** The bidder shall supply the same model of cards for any given type of extension/trunk interface such as Analog line, Digital extension line, BRI, PRI etc for each site. Multiple models of cards for same type of interface are not acceptable. In general following specification design guidelines should be strictly followed for delivering the offered IP Based EPABX system:

- All EPABX hardware should be 19” rack mountable
- All medial gateways, remote shelves should be of same type

- Each media gateway/remote shelved should have at least 2x 10/100 Mbps LAN ports supporting 1+1 or 1:1 configuration
- Each media gateway / remote shelf should be modular having min 8 universal slots per module for peripheral boards without having any restriction of backplane bus capacity.

Peripheral modules should support following hardware configuration

Analog subscriber Board	= minimum 16 Circuits/ per Board
Digital Subscriber Board	= minimum 08 Circuits/ per Board
CO/ PSTN Trunk Board	= minimum 08 Circuits/ per Board
ISDN/ PRI Trunk Board	= minimum 01 Circuits /per Board

**1.11 Main Distribution Frame (MDF) for exchange side of supplied EPABX system shall meet the following as minimum :**

- a. Connectors : Genuine Krone LSA module equipped as per total wired capacity per site
- b. Type of enclosure : Metallic Fully covered Floor Mounted (Rack) Or Wall mounted (DB)
- c. Size : Should be sufficient to accommodate at least 2000 analogue ports
- d. Insertion tools : 12 No's Genuine Krone Make
- b. To be equipped with line protection units (IPM) fuse for all Trunk & CO lines.
- f. 100 number of Jack for line isolation and monitoring for each site

**1.12 Earthing System:**

Wherever possible existing equipment earthing shall be used for EPABX system and associated item. If existing Earthing is found unsuitable for new system, vendor shall provide separate earthing arrangement without any additional cost implication to GAIL. The specifications for the telecom earthing system are as follows:

- 1.12.1 The pit will consist of a copper plate of 600 mm (W) x 600 mm (D) x 6 mm (T) being placed into the ground. Earth Pits shall have a minimum of 1.5 meter clearances from the walls of the building/ Shelter.

- 1.12.2 The earthing pit installation procedure shall be as per the following:

A pit of 2500 mm depth and 1000 mm diameter will be made. The copper plate 600 mm (W) x 600 mm (D) x 6 mm (T), the copper strip 25 mm (W) x 3 mm (T) and ¾" GI Pipe will be bolted with brass nut and bolt. The bottom of the pit will be filled with the charcoal and salt layers as shown in the diagram. Assembly of the electrode will be inserted in the pit and will be hold vertically till the next below mentioned fillings are made. The copper plate will be at the depth of 1.65 mtrs from the stiff soil. The copper plate shall be covered in layers of charcoal, salt and mud as shown in the drawing. The electrode is surrounded by an homogenous layer of highly conductive material. With average moisture content, this will form a conductive electrolyte throughout a wide region surrounding the earth electrode, thus reducing the earth resistivity. The earth resistance offered by this pit is less than or equal to 2 ohms for Telecom earth. For watering these layers the GI pipe will have holes of 14 mm diameter at equal intervals for water to flow in the pit to maintain the earth resistivity at regular intervals. This GI Pipe will have funnel on top to pour water and bolted with copper plate of size 250 mm (W) x 50 mm (D) x 4 mm (T) and this plate shall be laid horizontally as shown in the drawing. One insulated Copper cable (cross-section: 25 mm<sup>2</sup>) will be extended and connected to Telecom Earth Bus bar 250 mm (W) x 30 mm (D) x 5 mm (T) in Telecom room. The bar will be mounted on ceramic insulators. On completion of compacting the filling material a chamber of 400 mm(L) x 600 mm (W) will be prepared using bricks and cement around the earth electrode funnel. On curing of the cement a MS cover plate 450 mm (L) x 450 mm (W) will be installed on top of the chamber for protection.

**1.13 REQUIRED EPABX CONFIGURATION:**

The configuration & setup of these new IP based EPABX systems are envisaged as under, wherein the Equipped & Additional Wired capacities of various interfaces are indicated.

- **For Equipped Capacity:** The vendor shall supply, configure / provision & commission the complete facilities including the required hardware, software, firmware, cabling, and terminations in the supplied system.
- **For Additional Wired Capacity:** The vendor shall keep the system ready with all cabling terminated at both equipment (for vacant / free slot) & MDF ends excepting the provision of hardware module in the supplied system. With the installation of interface module in the wired slot, the facility will be available at MDF. In bill of materials, wired capacity is defined in terms of number of analog ports only. (i.e. excluding CO-trunk, other ports)
- **For Shelf Capacity:** The vendor shall keep the system ready with spare capacity in media gateways (equipped with sub rack, backplane, Power supply and other common and control boards) for addition of subscribers, trunk modules

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in vacant / free slots of existing media gateways. In bill of materials Shelf capacity is defined in terms of number of number of analog ports only. (i.e. excluding CO-trunk, other ports) Analog ports only.

In addition to the above mentioned Equipped & additional wired and shelf capacity, the IP based EPABX system should also be expandable up to 10000 ports. This expansion should be in building block architecture by adding on additional cards / stacks / cabinets at central EPABX system and/or existing Remote units and also by addition of new Remote unit(s) under existing central EPABX system. However, such expansion up to the defined **Expandable Capacity** should not involve any addition / up gradation of Processor, Software, license or any of the other common control hardware of existing central EPABX system and Remote units.

**For each of the sites, licenses has to be supplied for all hardware module / software / firmware of the IP based EPABX systems up to the aggregated capacity of their individual 'Equipped Capacity' & 'Additional Wired Capacity', as mentioned in detailed BOQ and configuration Sheet.**

#### **1.14 INTER-CONNECTION WITH EXISTING GAIL-EPABX SYSTEMS:**

The supplied IP based EPABX system shall be interconnected to following EPABX systems over existing media provided by GAIL. The interconnection of new & existing EPABX system shall be for seamless inter-office EPABX communication in line with interconnectivity scheme & exchange access numbering scheme.

S/No	Location	Equipment make /model	Existing Interface
1	TOWNSHIP, PATA	SIEMENS HIPATH 4000	1 x PRI (*)
2	GAIL DIBIYAPUR	ALCATEL IP OMNIPCX	1 x PRI (*)
3	GAIL VIJAIPUR	ALCATEL 4400	1x PRI

(\*) The supplied IP base EPABX system is proposed to be integrated with the EPABX system of GAIL Gaon and GAIL Dibiyapur over IP LAN/WAN network. Offered EPABX system should have adequate ports/ HW/ SW capability, license etc. for implementing such connectivity in future. Requisite Network connectivity, Hardware, Software license etc of existing EPABX side shall be provided by GAIL.

#### **1.15 Technical Specifications of Associated Items**

Detailed technical specifications of following associated items are enclosed in these sections for designing, building and delivering the required site specific configurations:

##### **1.15.1 TECHNICAL SPECIFICATIONS OF 42 U, 19" RACK ENCLOSURE**

##### **1.15.2 TECHNICAL SPECIFICATIONS OF DESKTOP DIGITAL OPERATOR CONSOLE**

##### **1.15.3 TECHNICAL SPECIFICATION OF PC BASED OPERATOR CONSOLE (SW)**

##### **1.15.4 TECHNICAL SPECIFICATIONS FOR IP SOFT PHONE**

##### **1.15.5 TECHNICAL SPECIFICATION OF CALL BILLING SYSTEM**

##### **1.15.6 TECHNICAL SPECIFICATION FOR INTEGRATED AUTO ATTENDANT CUM VOICE MAIL SYSTEM**

##### **1.15.7 TECHNICAL SPECIFICATIONS OF VOICE, DATA, SIGNAL AND POWER CABLES**

##### **1.15.8 TECHNICAL SPECIFICATIONS OF INSTALLATION MATERIALS**

##### **1.15.1 TECHNICAL SPECIFICATIONS OF 42 U, 19" RACK ENCLOSURE**

Industrial enclosure /Networking Rack to be provided at each EPABX locations to accommodate following equipment's / sub systems:

- Communication Servers
- Central Unit Media Gateway, Peripheral shelves
- Remote Gateways, peripheral Shelves
- L2/L3 Switch, Ethernet over Fiber modules
- Fibre management System
- SMPS based FCBC unit for -48VDC input
- SMF battery banks
- Any other associated hardware
- Space for future up gradation

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The offered equipment racks shall meet or exceed following specifications

<b>S/no</b>	<b>Parameter</b>	<b>Min Specification</b>
1	Make	OEM of IP EPABX OR /APW/PRESIDENT/ RITTAL/SCHNEIDER
2	Model	Vendor to Specify
3	Description	19", 42 U Rack Enclosure
4	Dimension	min 800x800 (WXD) in mm
5	Height	min 42U
6	Equipment mount	19 "rail
7	Front door	PERFORATED STEEL SINGLE DOOR WITH LOCK
8	Rear door	PERFORATED STEEL SINGLE/DOUBLE DOOR WITH LOCK
9	FAN	4 x 230V, 90 CFM – fitted at the top
10	Lighting	02x CFL (8W) /LED (3W) lights with automatic on/off switch
10	Heavy duty shelf	to accommodate SMF batteries
11	Shelves	to accommodate / support equipment's modules smaller than 19"
12	Mounting frames	as per site requirement
12	Support Angles	to support heavy modules - as per site requirement
14	AC distribution unit	as per site requirement
15	DC distribution unit	as per site requirement
15	Cable management	01 Lot As per requirement
16	Earthing continuity	01 set
17	Load bearing capacity	~ 400 Kg
18	Material standard	Vendor to specify
19	Finish	Vendor to specify
20	Color	Vendor to indicate available options

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#### **1.15.2 TECHNICAL SPECIFICATIONS OF DESKTOP DIGITAL OPERATOR CONSOLE**

The IP based EPABX system should support Digital Desktop Operator Console, which shall have connectivity with EPABX system using one pair /two pair of telephone cable and it shall provide the following minimum facilities:

- Operator Extension should be configurable for Working Hours and Non-working Hours
- Minimum 30 functional and programmable keys
- Control / Direct access to specified trunks
- Minimum 2 Line/40 character alphanumeric display
- DTMF Dial Pad with call processing buttons.
- Lamp indications for console status.
- Multiple tenant groups with designated group queue and night service extensions.
- Trunk verification
- Name dialing
- Status indication of Station.
- Serial Calling.
- Priority Queuing
- Force trunk release.
- Override/Barge- in
- Monitoring of ongoing call Programmable enable and disable.
- Trunk group status
- Last Number redial
- Hands free dialing
- Date and Time Display
- Multiple line appearance with incoming call queue

IF offered EPABX system does not support desktop Operator Console, majority of the features /functions needs to be implemented by supplying and using digital phones of same make which does not require any external power. Min specifications of digital phones are mentioned in section –II.



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### **1.15.3 TECHNICAL SPECIFICATION OF PC BASED OPERATOR CONSOLE (SW)**

The IP based EPABX system should be equipped with PC based Operator Console which shall have connectivity with EPABX system using Ethernet (10/100/1000 Mbps) interface over LAN. This PC based operator console shall provide all functionality of desktop operator console as mentioned above using:

- GUI based Desktop Application Software
- Customizable role, appearance, configurations
- Programmable keys for Speed dial / feature / functions
- Multimedia Kit (Microphone, Headset)

The desktop PC for PC based Operator Console shall be provided by GAIL having following min configuration. Windows XP/Windows Vista/ Windows 7 OS based Desktop PC with Intel Processor and RAM 512 MB, Hard disk 40GB along with the colour monitor, Mouse & Keyboard.

### **1.15.4 TECHNICAL SPECIFICATIONS FOR IP SOFT PHONE:**

The vendor shall supply & install Soft Phone Client in GAIL's Desktop PCs/Laptops (having Windows OS & speaker microphone Headset interface), working on either GAIL's Intranet or has the VPN connectivity to GAIL-Intranet over Internet. The soft phone on its installation in desktop PC/Laptop should act as Soft Phone of IP based EPABX system and shall provide following minimum functionality:

- (a) Soft-phone user shall have access to telephony services as any other user of the IP based EPABX
- (b) Soft-phone shall be able to make outgoing calls, receive incoming calls and shall have facility to:

- (i) Take, Clear, Transfer call
- (ii) Dial DTMF tones
- (iii) Redial the last number
- (iv) Send a call back request
- (v) Put a call in conference
- (vi) Put a call on hold
- (vii) Request Call back

- (c) Soft-phone application shall offer phone line graphical interface to allow the user for its configuration.
- (d) Soft-phone shall be able to handle USB based handsets, connected to associated Desktop PC/Laptop.
- (e) For the connection using thin client the session shall be secured by the use of HTTP (HTTPS).
- (f) Shall have support for strong authentication mechanism for users accessing the application.
- (g) Application sessions shall close automatically after an inactivity period.

### **1.15.5 TECHNICAL SPECIFICATION OF CALL BILLING SYSTEM**

**Standard features of Call Logging & Billing System:** The IP based EPABX system shall support Window based user friendly Call Logging & Billing system, which shall facilitate the following:

1.15.5.1 It should be PC-based system with Real Time calls display compatible with offered IP EPABX system. The call detail record (CDR) format can be re- programmed after installation to matches the particular CDR format that EPABX is sending out.

1.15.5.2 It should provide Exports/imports interface for CDR, Billing connector for other application to retrieve telephone charge information for other purpose

1.15.5.3 It should provide highly reliable and secure storage of call data. The CDR received from EPBAX will be saved to text-based log file first, and then be processed. The processed CDRs and other information are to be stored in a database. After processing and storage no data should be allowed to alter, edit, modify or delete afterwards.

1.15.5.4 Other Feature:

It should provide CDR via RS232 or TCP/IP

It should have Data Processing capability after updating rate table or user information.

All amendments made to the databases must be applied instantaneously.

The system must be fully customizable as per organization requirement by add/del/modify any field in database.

All reports must be provisioned to filter by selecting desired setting and report will be displayed of selected filter /layout.

1.15.5.5 The Call billing software shall have the provision for adding/modifying/deleting the STD/ISD/Local codes, call tariff & call time zones at site as & when required to accommodate the changes carried out by DoT / Service provider time to time.

#### **1.15.5.6 System capability:**

1. User friendly GUI and icons toolbar
2. Auto backup and purge
3. Easy entry on tariff table.
4. Auto insertion of extension number in databases to reduces the administrator's work.
5. Backup files in compressed format to allow easy data storage onto HD.
6. Rebuilds and compacts database for performance optimization (e.g. printing)

#### **1.15.5.7 General Report features of call billing system**

1. **Detailed Reports** – Reports must provide details overview with a line for each call showing call details including date, time, extension, called/calling number, destination/origin, duration, cost, trunk-line, and more.
2. **Summary Reports** – Reports must provide a summary overview with totals and averages of selected calls, duration and cost of the calls with an option to drill-down to view call details for individual users.
3. **Organizational Summary Reports** – Report must provide a summary overview of the telephone traffic of organization with an option to drill-down to view underlying departments and details of individual users.
4. **Exception Reports** – Reports exceptional calls: After Hours, Expensive, Long, Abandoned or Unassigned Calls.
5. **Graphical Reports** - Displays selected Historical, Usage and Traffic data in selectable graphical formats e.g. bar chart, pie chart spline and mark.
6. **Frequency Reports** - Shows the frequency of selected call items, e.g. most called, expensive, longest, etc.
7. **Custom Reports** – Customized reports to meet your specific reporting requirements. And reports can be exported to TXT, HTML, XML, Excel, PDF (password protected) format.

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8. **Multi site capability:** System must capable to allow reporting on multi-site across network on TCP/IP from central location irrespective of make /type of telephone system.
9. **Real Time Graphical report:** System must capable display real time graphical report at point of time for system management & analysis.
10. **Traffic Analysis:** Traffic analyzer report must allow viewing the average & pick usage of calls for addition of trunk lines to avoid call drops & call disconnection.
11. **Bill generation:** Display bill of individual in proper format by mentioning name, deptt, section, and call details with total call charges for particular month or period.

**1.15.5.8 Security feature:**

1. Administrator is able to assign different level of access rights for different user.
2. System to be protected by authentication /password challenge to prevent unauthorized closing/disabling/shutdown.
3. User's activities (e.g. login or logout) are recorded onto log file.

**1.15.5.9 Hardware requirement:** The desktop PC /Workstation for Call billing system shall be supplied separately as per schedule, specifications mentioned elsewhere in the tender document.

#### **1.15.6 TECHNICAL SPECIFICATION FOR INTEGRATED AUTO ATTENDANT CUM VOICE MAIL SYSTEM**

**The IP based EPABX system should be equipped with an integrated auto attendant cum voice mail system with customized features as per site requirement to meet the following requirement:**

1. It should be OEM part of offered IP EPABX System including hardware and software modules
2. It should be either in skin hardware based or PC (software based)
3. It should provide GUI/ Window/Web based Application for system administration
4. It should be capable of handling min 8 simultaneous 8 incoming calls (ie minimum 8 port system)
5. It should provide IP/LAN Connectivity for call routing to/from EPABX.
6. It should provide playback of customized greetings with background music
7. It should provide Customized voice prompts to meet site specific requirement
8. It should provide Min two Language Options
9. It should provide Input of incoming digits against voice prompt
10. It should provide Automatic fax routing
11. It should provide Playback of music on hold, customized background music, promotional message during on hold/ transfer /progress
12. It should provide fully supervised call processing without any call drop, disconnections. In case of busy /no answer etc, same shall be announced to caller using predefined voice prompts and calls shall be redirected to voice mailbox or operator console as per site specific requirement.
13. It should provide routing of calls to operator, predefined extensions as per line status (busy, no answer etc)
14. It should provide Seamless routing of calls to Voice Mail System.

**Voice Mail Features:** Voice mail system enables a caller to leave recorded voice messages in a voice mailbox associated with an extension. The offered system should have an integrated database of voice mailbox linked with extension number or extension groups.

1. It should provide minimum 8 voice mail ports to access the voice mailbox.
2. It should support Min 100 hrs of record should be supported
3. It should support Min 1000 voice mailbox

#### **Voice Mailbox:**

Voice Mailbox numbers shall be same as extension numbers. Each voice mailbox shall have sufficient storage capacity for recoding / storage voice messages. Each voice mailbox shall have it user defined / customized greeting message and voice prompts to route incoming calls to another extension, operator or to voice mailbox.

#### **Routing and recording of Voice messages:**

A caller can leave a voice message to individual voice mailbox directly through interactive voice prompt of Voice Mail System or through automatic routing of incoming telephone calls to VMS during busy, no answer condition. Voice mail system should support standard digital audio formats like mp3, wav etc.

**Retrieval of Voice Message:** User can retrieve the messages directly from their individual telephone by dialing the voice mail system from any other extension by giving access codes and passwords for specific mailbox.

**Email interface/PC interface:** It should be possible to deliver the audio files from voicemail system to individual emails as audio attachments (in mp3, wav other digital format). Alternately it should be possible to Access/read/playback voice messages from individual PCS connected to the same IP network using web browser (http/https)

**Voice mail Indication:** Indication of unread voice mail shall be given by following ways

- Through assigned message wait lamp in analog phones
- Through LCD Display or designated function key (with LED lamp) of digital /IP phone
- Specific button of IP softphones/ Apps
- System generated interactive voice prompt during off hook condition of a telephone

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#### **1.15.7 TECHNICAL SPECIFICATIONS OF VOICE, DATA, SIGNAL AND POWER CABLES**

Specifications of Voice, data, control and signaling cables, connectors etc shall be FTP/STP type and approved by OEM of EPABX system as per International/ National standards, practice and guidelines meeting the following as minimum.

**Subscribers Cables** : From Analog, digital, ISDN subscriber interface module to Main Distribution Frame  
**Conductor type** : Min 0.4mm tinned copper  
**Cable type** : Shielded twisted color coded pairs overall PVC insulated  
**Termination at EPABX END** : Factory Assembled, Tested and pre-terminated connector with latch/locking mechanism  
**Termination at MDF Side** : Open for termination at site in MDF (Krone connector) .  
**Capacity /pairs** : to match with number of ports available in subscriber modules  
**Digital trunk (PRI) interfaces cable:** Screened EMC Shielded as per TIA/EIA/ITU/TEC standards

#### **1.15.8 TECHNICAL SPECIFICATION OF INSTALLATION MATERIALS:**

All installation materials required for installation testing and commissioning of complete IP based EPABX systems shall be included in the scope of supply including the following as minimum:

<b>S/no</b>	<b>Details / Locations /Application</b>	<b>Material Description</b>	<b>Quantity</b>
1	Routing of subscribers, trunks cables from EPABX Rack to Main Distribution Box	Min 12" Perforated Galvanized cable tray/ Or heavy duty aluminum Ladder type cable tray with all hardware angles brackets etc to accommodate all cable	As per Site requirement
2	Routing of AC cable Power supply cable from ACDB to FCBC input	Min 2"x2" Solid PVC Conduit/Cable Drain	As per Site requirement
3	Routing of DC cables from FCBC to Different Equipment	Through 2"x2" PVC conduits inside equipment rack	As per site requirement
4	Routing of OFC cable inside Equipment room upto Fiber management system	Through 2x2 Fiber-Duct/channels with cover and all angles and fittings	As per site requirement
5	Routing of CAT 6 Patch cables inside equipment rack	Through horizontal and vertical cable managers (to be supplied with Equipment rack )	As per site equipment
6	Routing of OFC patch cables	Through Flexible pipers outside the rack and through spiral wraps inside equipment rack	As per site requirement
7	Other hardware fittings Anchor bolts, angles, cable ties, markers, Hook and loop ties, wraps, cable tags, flag ties, lugs, terminals, nuts and bolts etc	For completing mechanical and electrical installation works	As per site requirement
8	Earthing Strip and Earthing conductors	Telecommunications Main Grounding Busbars with Equipment Bonding Conductor min 6/10 AWG green wire with yellow horizontal stripe pre-terminated	One set for each site
9	Other hardware fitting		As per site requirement

**SECTION II**

**TECHNICAL SPECIFICATIONS**

**OF**

**DESKTOP DIGITAL AND IP TELEPHONES**

<b>Item No</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>
2	Desktop Digital Telephone	34	Nos
3	Desktop IP Phone	09	Nos

**2.1 TECHNICAL SPECIFICATION FOR DESKTOP DIGITAL PHONE:**

- a) Desktop digital telephone with tilted/ elevated support /stand.
- b) Should work using one pair of standard telephone cable extended from the EPABX.
- c) Fully line powered system, (no need for any external power to operate)
- d) Digital line interface.
- e) Tilt-able LCD Graphical Display of high resolution with minimum 4-line text message on screen
- f) Messages wait Indicator.
- g) Incoming call indication through Display and Optical (Visual) Alert
- h) Incoming call indication (thru display/Optical alert) while one line is in use.

- i) Minimum 16 programmable keys & provision for additional soft-keys by addition of extra key modules.
- j) 4 way keys for menu navigation.
- k) Incoming Speech Gain Control.
- l) Ringer Volume Control.
- m) Full Speakerphone with high audio quality in Hands-free operation (full Duplex) & Mute facility.
- n) On-Hook dialing from key pad (no need to press speaker, line, or other function keys, before dialing a telephone number).
- o) Hot dialing from key pad for transfer, conference (no need to press hold, flash or other function keys, while a conversation is already in progress)
- p) Adjustable Handset and Monitor speaker volume.
- q) Optical call alert (LED/LCD) for incoming call
- r) Echo cancelling for local echo (AEC full duplex)
- s) Alphanumeric keypad for dial-by-name
- t) Make: OEM of EPABX system

Offered Desktop Digital Telephone shall be included in POC testing for verifying Build quality, aesthetics, ruggedness, ease of operation and technical features, functions etc

## 2.2 TECHNICAL SPECIFICATION FOR DESKTOP IP PHONE

The connection for IP phone will be provided by existing CAT-5 cable that is being used for data access. The IP hard phone should have inbuilt dual ports Ethernet Switch of 10/100/1000 Mbps to connect desktop PC through RJ-45. Other features should be as follows:

- a) 10/100/1000 Mbps connection: half/full duplex with auto negotiation and manual configuration. The maximum cable length is up to 60m
- b) IP phone should have inbuilt Ethernet switch with QoS support with the facilities for TOS diffserv & 802.1p/q.
- c) Ethernet (10/100/1000Mbps) line interface with secondary (10/100/1000 Mbps) port for collocated PC or Laptop with IEEE 802.3af power over Ethernet compliant ports.
- d) IP hard phone should support protocol H.323/SIP for IP Telephony.
- e) Protocol support for voice quality G.711, G.722, G.729a/b and for echo cancellation.
- f) IP addressing Static or dynamic IP parameter configuration. A DHCP client should be integrated in the set
- g) IP Programming and configuration through internal man machine interface during its activation allowing configuration of the main IP parameters such as:- MAC address access, Program a static IP address (if no DHCP server) and IP Subnet mask, Router IP address, Frame tagging activation/deactivation & default VLAN 802.1pq etc.
- h) Web based programming and administration using PC interface (http/https over LAN/WAN)

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- i) Tilt-able Graphical Display of high resolution, minimum 4-line text message on screen
- j) Messages wait Indicator.
- k) Incoming call indication (display) while one line is in use.
- l) Minimum 16 programmable keys
- m) 4 way keys for menu navigation.
- n) Incoming Speech Gain Control.
- o) Ringer Volume Control.
- p) Full Speakerphone with high audio quality in Hands-free operation (full Duplex) & Mute facility.
- q) Hot dialling from key pad for call transfer, conference (while a conversation is already in progress).
- r) Adjustable Handset and Monitor speaker volume.
- s) On-Hook dialling
- t) Optical call alert (LED/LCD) for incoming call
- u) Echo cancelling for local echo (AEC full duplex)
- v) Alphanumeric keypad for dial-by-name
- w) Make: OEM of IP EPABX system or as per approved make (Appendix-A)

Offered Desktop IP Telephone shall be included in POC testing for verifying Build quality, aesthetics, ruggedness, ease of operation and technical features, functions etc

## **PART V**

### **SECTION- III**

#### **TECHNICAL SPECIFICATIONS OF**



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## COMPLETE OFC BASED LAN/WAN SYSTEM

Item No	Description	Qty	Unit
4	Complete OFC Based LAN/WAN System	1	Lot

DETAILED BOQ FOR OFC Based LAN/WAN System			
S/no	Description	Quantity	Unit
1	<b>Managed 24 port L2/L3 Ethernet Switch chassis</b> equipped with 6 x SFP based fiber port (Single Mode, Gigabit LAN) 6 x SFP transceiver 12 x 10/100/1000 baseT LAN port (1+1) redundant power supply for -48VDC operation	2	EA
2	<b>Managed Ethernet Access Unit</b> equipped with Min 2 x SFP based fiber port (SM, Gigabit ) with SFP transceivers Min 8 x 10/100/1000 baseT LAN Port -48VDC power supply unit	6	EA
3	12-fiber jelly filled armoured multi-tube single mode optical fibre cable conforming to latest issue and tables of ITU-T G.652	90000	Meter
4	19" rack mountable 24 Port fiber management System equipped with splicing tray and fiber patching + distribution frame (SC Ultra PC Type)	8	EA
5	Single mode, simplex fiber optic patch cords 10 M with Ultra PC finish	40	EA
6	Color coded, Factory Assembled, CAT6 UTP/STP Patch cords Length and quantity as per site requirement for complete wiring of Server, Media Gateways, Switch, Workstations, Control units other	1	Lot

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	devices that requires LAN connectivity and 10 spare cables for future use.		
<b>7</b>	Installation materials as per site requirement	<b>1</b>	<b>Lot</b>
<b>8</b>	CD/Documentation, manual etc	<b>1</b>	<b>Lot</b>

#### 4.1 TECHNICAL SPECIFICATION OF L2/L3 GIGABIT MANAGED SWITCH

Make : Vendor to Specify  
Model : Vendor to specify  
Description : Managed L2/L3 Gigabit Ethernet Switch  
Application : To provide Gigabit Ethernet connectivity over single mode OFC  
Power Supply : Redundant hot-swappable power supplies (of same type)  
-36 to -72VDC (-48VDC nominal)  
Physical : 19" Rack mountable (Vendor to specify dimensions)  
**Number of ports:** : Min 22 ports with SFP transceivers supporting 10/100/1000 Mbps speeds over copper and Fiber  
Connectors : SFP slot for each port

**Equipped Network port** : Min 6 (six) with SFP (OEM part) transceivers of following specifications

Type : Hot swappable  
Interface : Gigabit Ethernet  
Standard : 1000BaseLX10, IEEE 802.3 (GbE)  
Fiber connector : 2 x LC Connector  
Wavelength : 1310nm or 1550nm,  
Fiber type : 9/125 single mode fiber  
Min Rx power : -20 dBm  
Min Tx power : -9 dBm  
Typical range : ~ 10 Km over G.652 SM fiber

**Equipped user ports** : Min 12 ports supporting 10/100/1000BaseT, IEEE 802.3 over UTP (RJ-45)

**Max. Frame Size** : 9,216 bytes  
**Forwarding Bandwidth** : 64 Gbps  
**Forwarding Rate** : 95 Mpps  
**MAC Address Table** : Up to 32,000  
**VLANS** : Up to 4K

#### Certifications/Standards compliance

MEF , EPL and EVPL (Vendor to give details)

#### Compliance

MEF 6 (E-Line – EPL and EVPL), MEF 10  
IEEE 802.1d Spanning Tree Protocol (STP)  
IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)  
IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)  
IEEE 802.3ad Link Aggregation Groups (LAG)  
IEEE 802.3ad Link Aggregation Control Protocol (LACP)  
IEEE 802.1ag OAM-CFM  
IEEE 802.3-2005 (formerly 802.3ah) OAM-EFM  
IEEE 802.1p QoS  
IEEE 802.1q VLANs  
IEEE 802.3 Ethernet LANs  
IEEE 802.3u Fast Ethernet

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#### **Management**

**Out-of-band:** via Dedicated terminal port (EIA-232) and Ethernet management port

**Inband:** via Ethernet network or user ports

#### **Security**

Access List (ACL)

ICMP rate-limiting

Port and VLAN security

RADIUS

SNMPv3

SSHv2

TACACS+

**Indicators:** Multicolour LED indication for system, power, port/link status/ activity

## **4.2 TECHNICAL SPECIFICATION OF MANAGED ETHERNET ACCESS UNIT**

Make : Vendor to Specify  
Model : Vendor to specify  
Description : Managed Ethernet Access Unit –for remote Units  
Application : To provide Gigabit Ethernet connectivity over single mode OFC  
Power Supply : -36 to -72VDC (-48VDC nominal)  
Physical : Vendor to specify dimensions  
Mounting : To be supplied with hardwares for mounting in standard 19” rack

**Network ports** Min Two network ports (SFP port) supporting redundancy Link aggregation (1+1) based on IEEE 802.3ad and Dual homing (1:1) for connecting two different upstream devices.

Each device should be equipped with 2x SFP transceivers (OEM part) as per the following specifications:

Interface	Gigabit Ethernet
Standard	1000BaseLX10, IEEE 802.3 (GbE)
Fiber connector	2 x LC Connector
Wavelength	1310nm or 1550 nm
Fiber type	9/125 single mode fiber
Min Rx power	-20 dBm
Min Tx power	-9 dBm
Typical range	~ 10 Km

**Equipped user ports** : Min 8 (Eight) 10/100/1000 BaseT, IEEE 802.3 over UTP (RJ-45) or as per site Requirement (including two spare ports) whichever is higher. If required number of port could not be provided from a single device additional device of same make and models has to be provided without any additional cost implications.

**Max. Frame Size** : 1632 bytes  
**MAC Address Table** Up to 8,192

**Certification** MEF, EPL, (Vendor to give details)  
**Compliance** IEEE 802.3, 802.3u, 802.1D, 802.1Q, 802.1p, 802.1ag, 802.3ad, 802.3ah

#### **Management**

**Out-of-band:** via Dedicated terminal port (EIA-232) and Ethernet management port

**Inband:** via Ethernet network or user ports over http, telnet session supporting following protocols

RADIUS (Client Authentication)  
SSH Web-based management  
SSL Secure Shell Telnet session  
SNMP for SNMP sessions

**Indication:** Multicolour LED indication for system, power, port/link status/ activity etc

**Supply:** complete system with power supply, programming cable/connectors, user manual, mounting kit etc.

**Note:**

- 1) Offered Managed L2/L3 gigabit Ethernet Switch and Access Units shall be of same make
- 2) Offered Managed Ethernet Access Units shall of same type (Model, Version, configuration etc)

### **4.3 TECHNICAL SPECIFICATION OF OFC CABLE**

**Brief description: 12-fiber single mode jelly filled armoured multi-tube optical fibre cable conforming to latest issue and tables of ITU-T G.652**

- 1.1.1 The jelly filled 12F armoured optical fiber cables (multi-tube) as per specification mentioned in the tender.
- 1.1.2 Single mode optical fiber cable shall fully comply with requirement of the following specification and meet the latest issue and tables of ITU-T G.652.
- 1.1.6 The length of optical fiber cable in each standard drum shall be  $4\text{KM} \pm 0\%$  to 5 % and shall not have any joint.
- 1.1.7 All the fibers shall be colour coded with UV curable inks and colour coding shall be as per latest specification or specified elsewhere in this document.
- 1.1.8 The life of cable shall be at least 15 years.
- 1.1.9 The cable shall be protected against damages from termite, rodent, fire chemicals (such as oil & natural gas, LPG and other petroleum products), moisture, and water over the lifetime of the cable.
- 1.1.10 The characteristics of Fibers and Optical Fiber cable shall not change during entire life of the cable/fiber.
- 1.1.11 Colour coding of loose tubes For 12 F armoured cable (as per ITU-T G.652)
- 1.1.12 No of filler tubes: min 2 tubes as a Fillers for maintaining the circularity of OFC

#### **1.2. Optical Requirements: as per latest recommendations and tables of ITU T G.652**

- 1.3.9.1 **Tensile strength** : Vendor to specify
- 1.3.9.2 **Crush load** : Vendor to specify
- 1.3.9.3 **Impact load** : Vendor to specify
- 1.3.9.4 **Torsion load** : Vendor to specify
- 1.3.9.5 **Water penetration** : Shall meet or exceed the limit as per latest TEC specification.
- 1.3.9.6 **Cable bend** : Minimum – bending radius will be 20 D, where ‘D’ is outer diameter of the cable.
- 1.3.9.7 Wherever there is ambiguity in the specifications/stands/ other details, TEC’s latest specification shall be followed.

#### **1.4 Other Requirements:**

- 1.4.1.1. **Cable Core Assembly:** Primary coated fibers are placed in loose tubes, which are around a central strength member. It shall be protected by means of filling compound having properties of non-hygroscopic dielectric material and / or swelling tape.
- 1.4.1.2. **Secondary Protection:** Loose packing within a tube, which shall be filled with thixotropic jelly, to protect primary coated fibers.
- 1.4.1.3. **Strength Member:** Fiber Reinforced Plastic with  $2 \pm 0.05$  mm of diameter which will provide strength and flexible enough, in order to keep the fiber strain within permissible values.
- 1.4.1.4. **Filling Compound:** it shall be compatible to fiber, secondary protection, core wrapping etc. (preferably thixotropic jelly). It shall be removable easily for splicing.
- 1.4.1.5. **Filler Tube:** As mentioned in the diagram to maintain the circularity of the cable.
- 1.4.1.6. **Aramid Yarn:** To be used around the loose tubes as per specification for extra protection to the loose tubes.
- 1.4.1.7. **Moisture Barrier:** Water swellable yarn (dry binder threads impregnated with super-absorbent-polymer (SAP)) shall be applied helically around the glass / aramid yarn with a minimum pitch of 25 mm.
- 1.4.1.8. **Inner Sheath:** MDPE of size 1.2 mm to 1.5 mm.

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1.4.1.9. **Armoring:** Armoring shall be provided over inner sheath by corrugated low carbon steel armour tape or corrugated electrolytic chrome coated steel (ECCS) armour tape to make the cable rodent and termite proof. The steel armour shall be coated on both sides with ethylene acrylic copolymer to inhibit corrosion and to bond to the outer jacket. The thickness of ECCS alloy shall not be less than  $(0.155 \pm 0.005)$  mm. The thickness of ethylene acrylic copolymer of the tape should be  $(0.055 \pm 0.005)$  mm. The height of corrugation shall be 0.6 mm and the pitch of the corrugated tape shall be maximum 2.5 mm. The chemical and mechanical properties shall be as per TEC and International standards. The armoring tape shall apply longitudinally with minimum overlap of 6 mm.

1.4.1.10. **Outer Jacket:** The armored shall be covered with tough weather resistant High Density Polyethylene compound (HDPE) of thickness of minimum 1.5 mm. It shall be circular, free from holes, joints, mended pieces and other defects.

1.4.1.11. **Rip Cord:** 2 numbers below the MDPE sheath and 2 numbers below the HDPE outer sheath.

1.4.1.12. **Electrical continuity** of the steel tape layer shall be maintained between the ends of the cable in each drum.

1.4.1.13. Over all cable, outer diameter shall not exceed  $16 \pm 0.5$  mm.

1.4.3. **Cable Identification :** All the cable shall have following information on the outer sheath / jacket:

- Fiber count and Type (like 12F, G.652, SM, size of cable).
- Month & year of manufacture.
- User Name.
- Length marking at 1m intervals.
- Marking: The Cable must be marked as "GAIL (India) Limited" at an interval of 1 Meter with hot foil indentation.
- 

#### 1.5 **Environmental Requirement:**

1.5.1 The Optical Fiber Cable shall be capable of working in the temperature range of  $-20^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ .

1.5.2 It shall be capable of withstanding different climatic and soil (including saline) conditions in India.

#### 1.6 **Packaging and Marking Requirements:**

Following details shall be distinctly marked on weatherproof material on outer sides of drum flange:

- User's name & address.
- The Cable must be marked with "GAIL (India) Limited" at an interval of minimum 1 meter hot foil indentation.
- Drum No. & Cable Identification Number.
- Size and length of cable.
- Gross weight in Kgs.
- Arrow showing the direction the drum can be rolled
- Mark indicating the location of inner end of cable.
- Cable end in the drum to be protected with heat shrinkable sleeves.
- Month, Year and batch number of manufacturing.
- Type of cable.
- Laminated sheet for fiber Attenuation results at 1310 nm, 1550 nm shall be attached with each drum.

All material is to be packaged so as to provide adequate protection against deterioration and physical damage in order to ensure safe arrival at installation site.

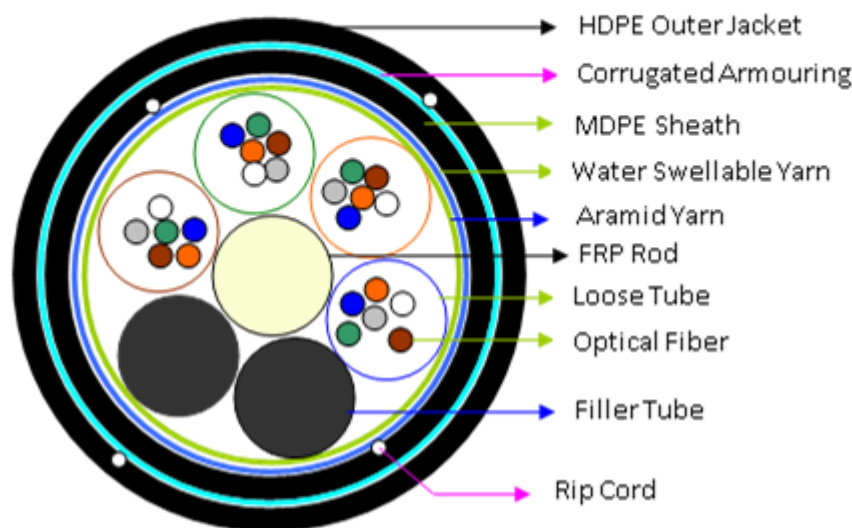
#### 1.7 **Handling and Storage Requirements:**

The Supplier shall specify the cable handling precautions during:

- Storage
- Transportation
- Laying of cable
- Cable preparation & splicing

The above Handling and storage specifications must comply with the relevant National / international standard.

1.8 Cross Sectional Diagram of cable is enclosed for reference



**Cross Sectional Diagram of 12  
Fibers Optical Cable**

**Note:**

Diagram is not to scale.

#### 4.4 TECHNICAL SPECIFICATION OF FIBER MANAGEMENT SYSTEM

Description: 19" Rack mount fiber management System

Application: Optical fiber cable termination for Telecom Systems (Generic splicing, patching and termination)

Make : Vendor to specify

Model : Vendor to specify

**Description:** Fiber management system is a shelf assembly for fiber termination and management inside networking rack enclosure of 19"/21" size. It is complete assembly including integrated splicing tray and patch panels in the same enclosure.

Construction : MS (CRCA) with powder coated Epoxy paint

Height : Min 1U

Patch panel : SC Ultra PC type (Female) on both side (OFC cable and patch cord side)

Fiber type : Single mode

Capacity : Min 24 fiber splicing, patching and termination

Cable Entry : Min 02 (Rear and Side) with end cover

Mounting : Sliding / Telescopic type to provide easy access to rear connections

**Scope of supply:** Each FMS should be supplied with:

- 1) 24Fiber FMS enclosure with mounting HW for 19" rack installation
- 2) Integrated or generic splicing cum patching tray of 24F capacity with all accessories
- 3) Integrated patch panel of 24 F capacity with SC Ultra PC (F) type termination with protective cover against dust ingress.
- 4) Space and accessory for horizontal and vertical management of patch cables
- 5) Single mode (G.652) factory tested, pre-assembled and numbered pigtailed with protective cover / Jacketed 24 Unit
- 6) Loose tubes for protecting bare fibers of cable end
- 5) Splicing accessories, labeling accessories, Instruction manual, Test report etc

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#### 4.5 TECHNICAL SPECIFICATION OF FIBER OPTIC PATCH CORD -10 METERS

S/N	PARAMETER	SPECIFICATION
1	MAKE	VENDOR TO SPECIFY
2	MODEL	VENDOR TO SPECIFY
3	TYPE	SINGLE MODE, SIMPLEX
4	APPLICATION	OPTICAL LONG HAUL TELECOM NETWORK
5	FIBER TYPE	SINGLE MODE, min 2.0 MM JAKETED
6	LENGTH	Min 10 METER
7	CONNECTER 1	SC ULTRA PC (FMS end)
8	CONNECTOR 2	LC (SFP End)
9	INSERTION LOSS	< 0.15 dB (Typical) MAX=0.5 dB
10	REFLECTANCE	>= - 58 dB (Typical) MAX =-55 dB
11	CONSTRUCTION	PUSH PULL LATCHING MECHANISM WITH AUDIABLE CLICK ENSURING PROPER CONNECTION
12	FERRULE TYPE	CERAMIC
13	HOUSING	COMPOSITE
14	CONNECTOR COLOR	BLUE
15	CABLE COLOR	YELLOW
16	OUTER DIA	Min 2.0 MM
17	STANDARD	TIA/EIA -604.2 COMPLIANT
18	TEST REPORT	TO BE SUBMITTED WITH SUPPLY

#### 4.6 TECHNICAL SPECIFICATION OF CAT6 LAN CABLE

**Make: Vendor to Specify**

**Cable Type: Cat6 Patch cable having following features:**

1. Used for patching between two RJ45 outlets in a Category 6 network.
2. Each RJ plug should have latch protector to reduce the possibility of snags within the cord bundle.
3. RJ45 plugs both ends.
4. Anti-snap feature on RJ plug clip.
5. Mounded boot to ensure minimum bend radius.
6. Category 6 performance.
7. Factory assembled and tested as per latest standards

**Length:** Min 3Ft for patching  
Min 7 Ft for subscriber connections  
Min 15ft between two systems

**Color:** Different type of Color schemes should be provided depending upon applications/type/speed etc (Red/ Blue/ Green/ Grey/ Black other)



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Reference Scheme 1

Red : Server Connections  
Blue : Network Connections/ system interconnections  
Grey : Subscriber Connections

Reference Scheme 2

Red : Primary connections  
Blue : Secondary connections  
Grey : Subscriber Connections

**Note:** Quantity, length and Color shall be as per sit specific configuration to meet complete cabling, interconnection, interface requirement plus 10 spare patch cable for future use.

**PART-V**  
**SECTION- IV**  
**TECHNICAL SPECIFICATIONS**  
**FOR**  
**COMPLETE FCBC SYSTEM**

Item No	Description	Qty	Unit
5	Complete FCBC System	1	Lot

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#### DETAILED BILL OF MATERIAL

S/no	DESCRIPTION						Quantity
1	<b>-48VDC SMPS BASED MODULAR POWER PLANT (FCBC) FOR TELECOM SYSTEM as per the following configuration</b>						01 Lot
	S/no	Telephone Exchange Locations	Input Supply	Min DC Load (Excluding Battery current)	Battery Capacity	Min SMPS Redundancy	Quantity
	1.1	QC Lab-Main	230 VAC	50 A	200 AH	N+1	01
	1.2	SS4	230 VAC	50 A	200 AH	N+1	01
	1.3	SS1	230 VAC	25 A	65 AH	N+1	01
	1.4	SB1	230 VAC	25 A	65 AH	N+1	01
	1.5	D/S	230 VAC	25 A	65 AH	N+1	01
	1.6	GAIL GAON	230 VAC	50 A	200 AH	N+1	01
2	<b>Installation material for Complete System</b> 230 VAC main input cable (3core, Armoured cable, Min 20 meter per site) MCB for AC Isolation (min 1 set per site) DC Output Distribution Frame with min 6 nos of MCB (Min 1 set per site) Battery Cable and connectors as per site requirement (Min 2x 5 Meter per site) Equipment earthing cable , terminals, hardware kit etc (one complete lot per site)						01 Lot
3	<b>Mandatory spares</b> Rectifier module : 02 nos Alarm and control module : 02 nos Spare Fuse, MCB, Terminal, lugs etc : 01 lot consists of one of each type						01 Lot

#### **4.0 DESCRIPTION OF FCBC SYSTEM:**

##### **-48VDC SMPS BASED MODULAR POWER PLANT (FCBC) FOR TELECOM SYSTEM.**

**4.1 Application:** The FCBC power Plant shall be used to provide uninterrupted DC input power to Telecom systems like EPABX, Multiplexers, OFC / Microwave transmission equipments on 24x7 basis. System shall be designed for unmanned operation with network access for monitoring and controlling

**4.2 Detailed Technical Specification:** Each FCBC system shall consist following subsystems as minimum:

- a) 19" rack mountable system chassis having at least 25 % spare capacity
- b) AC Over & under Voltage Protection with auto cut-off and restoration.
- c) One No. Microprocessor controlled Alarm / Control module
- d) One no. Low Voltage Disconnect.
- e) DC distribution: min 3 MCB's upto 63A each
- f) 6 Nos. PFC Contacts for Remote Monitoring of Alarms
- g) Surge Protector Class 'C'.
- h) Rectifier modules equipped with N+1/1+1 redundancy as per requirement
  - i) Serial (USB/RS-232) or Network (LAN) interface for local /remote management via Windows based PC
  - (k) Software for system management and control via PC
  - (l) AC input (three ph./ Single phase) MCB

**4.3 Technical Specifications of Alarm / Control Unit :** The supplied alarm /control unit should provide local and remote monitoring and Control via front panel buttons, LCD-display, USB- or RS-232 Interface, as well as via modem, Ethernet, web and SNMP.

##### **4.3.1 Required Features:**

- i. Front panel LCD and buttons for on-site service without PC.
- ii. USB/RS-232/LAN interface for local/remote monitoring and control via PC.
- iii. 6 user programmable relay outputs for remote monitoring
- iv. Monitoring and testing without site attendance
- v. Temperature compensated charging
- vi. Alarm/event log with time and date
- vii. Windows-based PC communication software

**4.3.2 Communication to Rectifiers:** by using digital interface architecture like CAN-bus communication to support dedicated communication channel with each rectifier. It should provide following monitoring and control functions:

##### **4.3.3 System Management**

Output Voltage Measurement  
Total Load Current Measurement  
Load/Battery Disconnect  
Alarm Level Settings (major / minor)  
Alarm Log (min 500 events)  
Real Time Clock with Battery Backup  
Site Text/ID  
Test of Relay Outputs  
Voltage Level setup

##### **4.3.4 Battery Management**

Battery Current Measurement  
Battery Testing  
Battery quality indication  
Battery Boost Charging  
Temperature Compensated Charging

##### **4.3.5 Rectifier Management**

Available information about each rectifier,  
Individual Rectifier Current Measurement  
Individual Rectifier Input Voltage

**4.3.6 Monitoring and control:** Through LCD and keypads for local operations. In normal operation, the front LCD will display the output voltage, battery current, load current and charge mode. If any alarm (major or minor) is activated, it should be indicated by audible alert (buzzer/beeper) and by visual indication via multicolour LED (front panel), the detail text of alarm should be presented in the LCD, and the corresponding alarm relay is activated for remote monitoring.

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**4.3.7 Alarms:** Following alarms can be set up with monitoring of minor, major, average and peak levels:

**4.3.7.1 System Alarms:**

Mains Failure (individual phases)  
Load Disconnect (voltage or timer)  
Load Fuse  
Load Current

**4.3.7.2 Battery Alarm**

High Battery voltage  
Low Battery voltage  
Battery Disconnect  
Battery Fuse  
Battery quality indication  
Battery discharge current

**4.3.7.3 Rectifier Alarm**

Rectifier Failure  
Rectifier Current Limit  
Rectifier Overvoltage Protection  
Rectifier Current

**4.4 Technical Specification Rectifier modules:**

All rectifiers' modules must be of same type (i.e. make, model, rating, etc)

All power plants must be designed with same type of rectifiers having min DC current capacity of 25A @48VDC.

All rectifier modules must meet or exceed following technical specification

**AC Input**

Voltage range	176 – 275 VAC
Frequency	45 to 66Hz
Maximum Current	Vendor to specify
Power Factor	> 0.99 at 50% load or more
Input Protection	Varistors for transient protection Mains fuse in both lines Disconnect above 300 VAC

**DC Output**

Voltage	53.5 VDC (adj. range: 43.5-58.0 VDC)
Output Power	Vendor to specify
Maximum Current	Vendor to specify
Input Current Sharing	Vendor to specify
Static voltage regulation	Vendor to specify
Dynamic voltage regulation	Vendor to specify
Output voltage	> 43.5 VDC at full load
Ripple and Noise	< 100 mV peak to peak,

<b>Output Protection</b>	Overvoltage shutdown Fuse/ Short circuit proof
--------------------------	---

**Alarms/ Indications:**

Low mains shutdown  
Rectifier Failure  
Overvoltage shutdown on output  
Low voltage alarm at 43.5V  
Input voltage out of range

<b>Efficiency</b>	min. 92% at 25-100% load
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**Isolation**

Input and output	3.0 KVAC
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Input earth	1.5 KVAC
Output earth	0.5 KVDC

**Standard and Compliance:**

Electrical safety	Required	Vendor to specify
EMC	Required	Vendor to specify
Environment	Required	Vendor to specify
RoHS compliance	Required	Vendor to specify

**Installation material** should consist of all hardware, cable and connectors, terminal, lugs, fuse etc required for commissioning the system at site

**Part-V**  
**Section- V**  
**TECHNICAL SPECIFICATIONS**  
**OF**  
**UPS FOR TELECOM SYSTEMS**

Item No	Description	Qty	Unit
6	UPS for Telecom Systems	3	Nos

**6.0 TECHNICAL SPECIFICATIONS FOR UPS FOR TELECOM SYSTEMS**

**Description:** Offered online UPS system shall provide 230VAC uninterrupted power supply to desktop Work station PCs proposed for running following applications, services on round the clock basis.

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- 1) Call monitoring and billing Application
- 2) Integrated auto attendance cum Voice Mail System
- 3) EPABX NMS, Maintenance console and other services.

In addition to the above, if communication servers of offered IP EPABX system requires 230VAC UPS power, same should be provided using these UPS system. If required UPS of higher capacity needs to be provided without any additional cost implication to GAIL to meet site specific power requirement for commissioning of complete system.

Minimum specification of offered Online UPS system shall be as follows:

#### **TECHNICAL SPECIFICATIONS UPS**

Input	: 230 VAC, 50 Hz, Single phase
Output	: 230 VAC, 50 Hz, Single phase
UPS Type	: Online UPS
Output power Capacity	: 1000 VA or Higher to meet site specific requirement
Efficiency at Full Load	: 95%
Output Waveform Type	: Sine wave
Output distortion	: < 5% at full load
Battery backups	: to support at least 4 hours backup with external batteries
Battery type	: External VRLA, SMF 12V, upto 65AH (to be provided by GAIL)
Battery bank Voltage	: ~36 VDC or ~48VDC (nominal)
Output Connections	: Vendor to specify
Orientation	: Interchangeable Tower or 19" Rack mount
Output connector	: Min 4 IEC type connector per UPS
Indications	: Illuminated digital LCD display Mains, Battery, load, backup time etc
Audio Alerts	: On UPS main, failure/ load on battery, bypass etc
Communication	: Via SNMP, USB, & RS-232 communications

#### **Standard and Compliance:**

Electrical safety	Required	Vendor to specify
EMC	Required	Vendor to specify
Environment	Required	Vendor to specify
RoHS compliance	Required	Vendor to specify

**Part –V**

**Section- VI**

**TECHNICAL SPECIFICATIONS**

**FOR**

**PC, WORKSTATIONS & MANAGEMENT CONSOLE**

<b>Item No</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>
7	PC, Workstation, Management Console	2	Nos



## **7.0 TECHNICAL SPECIFICATIONS OF DESKTOP WORKSTATION, CONSOLE PC FOR IP BASED EPABX SYSTEM:**

**Application:** Offered desktop Workstation PC Console should be designed for heavy duty applications to run round the clock basis without need for any preventive maintenance, shutdown etc for the following type of applications and services:

- 1) Installation and running of Call monitoring and billing Application
- 2) Installation and running of Integrated auto attendance cum Voice Mail Application
- 3) Installation and running of EPABX NMS, Maintenance console and other services.

<b>S/no</b>	<b>Parameter</b>	<b>Specification</b>
1	Make	Vendor to specify
2	Model	Vendor to Specify
3	Application	For running EPABX Applications and Functionalities on round the clock basis (24 x 7 x 365 days)
4	Type	Workstation PC or Low end Server Designed to operate on 24x7 basis
5	Orientation	Horizontal / vertical
6	PROCESSOR	Min Intel(R) Xeon(R) 3.06GHz/8MB L3 Cache/4.8GT/s
7	Operating System	HW should support Windows(R) 7 Professional 64bit However, actual OS supplied should be compatible to Proposed EPABX application.
8	SECURITY	Licensed Genuine Antivirus, spam/ malware filter, Internet security software to be provided preloaded by the vendor with min 2 years Subscription.
9	CHASSIS	Minitower /other
10	DISPLAY	To be supplied with Min 19" Widescreen Flat Panel Monitor of same OEM
11	MEMORY	Min 4GB (2x2GB) DDR3 SDRAM, 1333MHz, ECC
13	HARD DRIVE	Min 300GB SATA (10,000RPM) Hard Disk Drive,
14	OPTICAL DRIVE	16X max SATA DVD+/-RW with Dual Layer Write Capabilities
16	VIDEO CARD	Min NVIDIA Quadro 600 or Equivalent (1GB)
17	NETWORK CARDS	Min 1x 10/100/1000 Ethernet
19	KEYBOARD	Enhanced Multimedia USB Keyboard
20	MOUSE	USB Optical Mouse
22	SPEAKER	Internal Speaker
23	Software	Genuine OS CD with License Genuine Antivirus / Security CD with license System recovery CD/DVD Resource /Utility DVD Burning SW
24	Accessories	All standard accessories required for system operation should be supplied by the Vendor

## APPENDIX A

### LIST OF APPROVED MAKES

<b>S/n o</b>	<b>Equipment, System, subsystem Details</b>	<b>APPROVED MAKES</b>
1	Communication Server -HW	OEM OF IP EPABX SYSTEM OR DELL/IBM/HP/FUJITSU having proven HW/SW compatibility with offered IP EPABX system
2	Communication Server SW, other Applications Software's of IP EPABX system	OEM OF IP EPABX SYSTEM
3	Equipment RACK	OEM OF IP EPABX SYSTEM OR APW/PRESIDENT/ RITTAL/SCHNEIDER/APC
4	Desktop Digital Phone	OEM OF IP EPABX SYSTEM
5	Desktop IP Phone	OEM OF IP EPABX SYSTEM or Cisco, Polycom (for SIP Phone)
6	IP Soft Phone, PC Based Operator Console SW	OEM OF IP EPABX SYSTEM
7	Integrated Auto attendant cum Voice mail system	OEM OF IP EPABX SYSTEM or other compatible systems
8	Call Billing System	OEM OF IP EPABX SYSTEM or other compatible systems
9	FCBC	Eltek/Delta/Eaton/ Emersion/ Amara Raja/ GE/APC other reputed make meeting all technical requirements
10	PC, Workstation, System Console	Dell/HP/IBM
11	OFC Cable	Sterlite, RPG, HFCL, TCL, HCL, Birla Ericsson, Finolex, or any other BSNL /TEC approved manufacturer
12	UPS	APC, Libert, Emersion
13	Managed Gigabit Ethernet Switches, Access Unit.	OEM of IP EPABX OR Rad, Tejas, ECI, Cisco, NSN, Enterasys, Alcatel Lucent, Avaya, Moxa, Juniper, TeLCO, Overture, Erricsson, Ciena, Transition, Accedian, Broadcom
14	CAT6 Patch Panel	KRONE/AVAYA/SYSTIMAX/TYCO/ADC/PANDUIT/MOLEX/LEVITON/CORNING/AMP/MOLEX
15	Fiber Management System	RAYCHEM/3M/KRONE/AVAYA/SYSTIMAX/TYCO/ADC/PANDUIT/MOLEX/LEVITON/CORNING/AMP/MOLEX
16	Optical Patch Cord, couplers, connectors	KRONE/AVAYA/SYSTIMAX/TYCO/ADC/PANDUIT/MOLEX/LEVITON/CORNING/AMP/MOLEX
17	MDF and Tag Block	Genuine Krone Only from ADC/ TYCO
18	Analog, digital, PCM, PRI, other Signal Cables, Connectors	OEM of IP EPABX, or Krone, AMP, Tyco, other makes as per ITU, IEEE, TIA, EIA recommendations

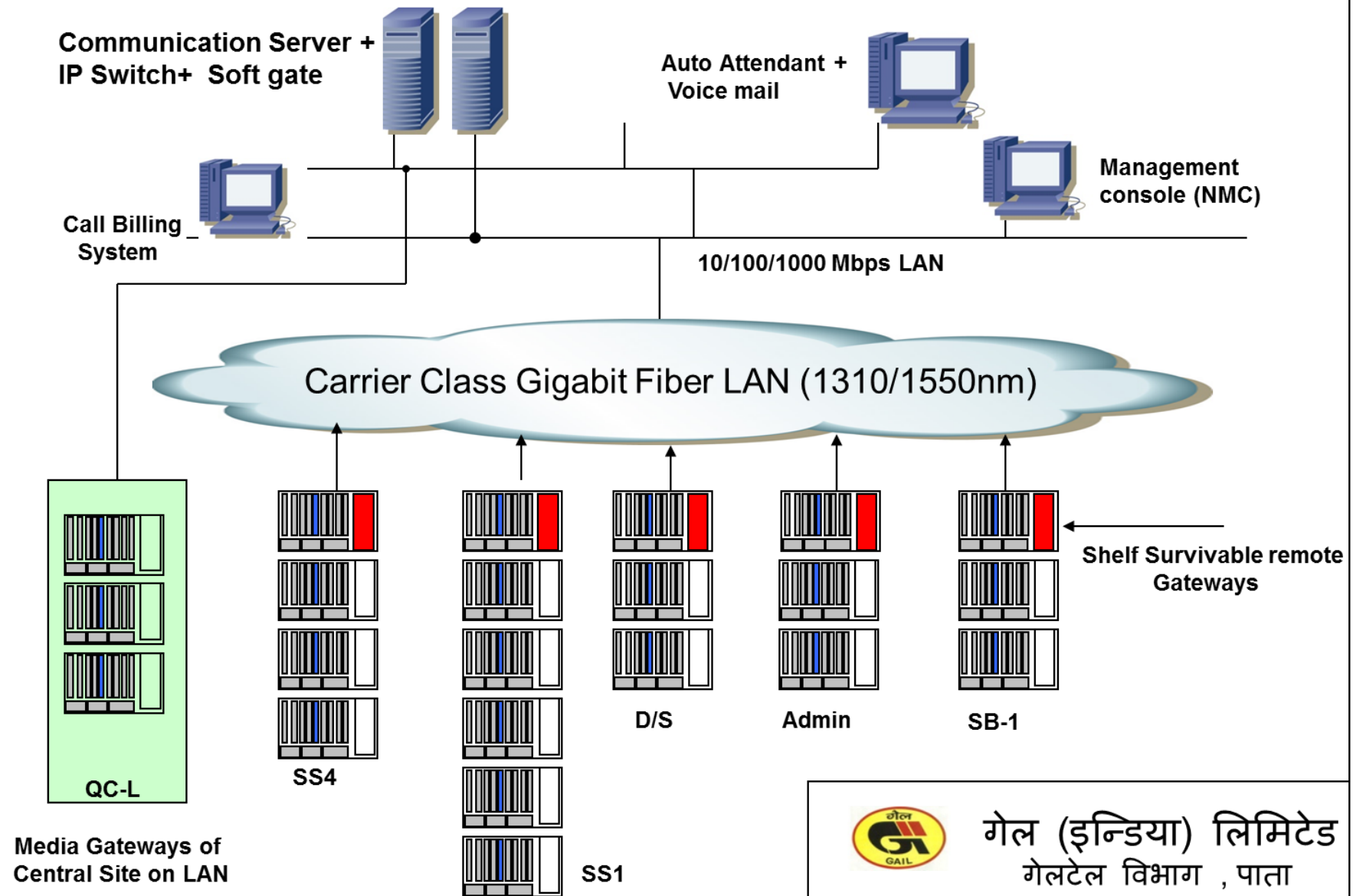
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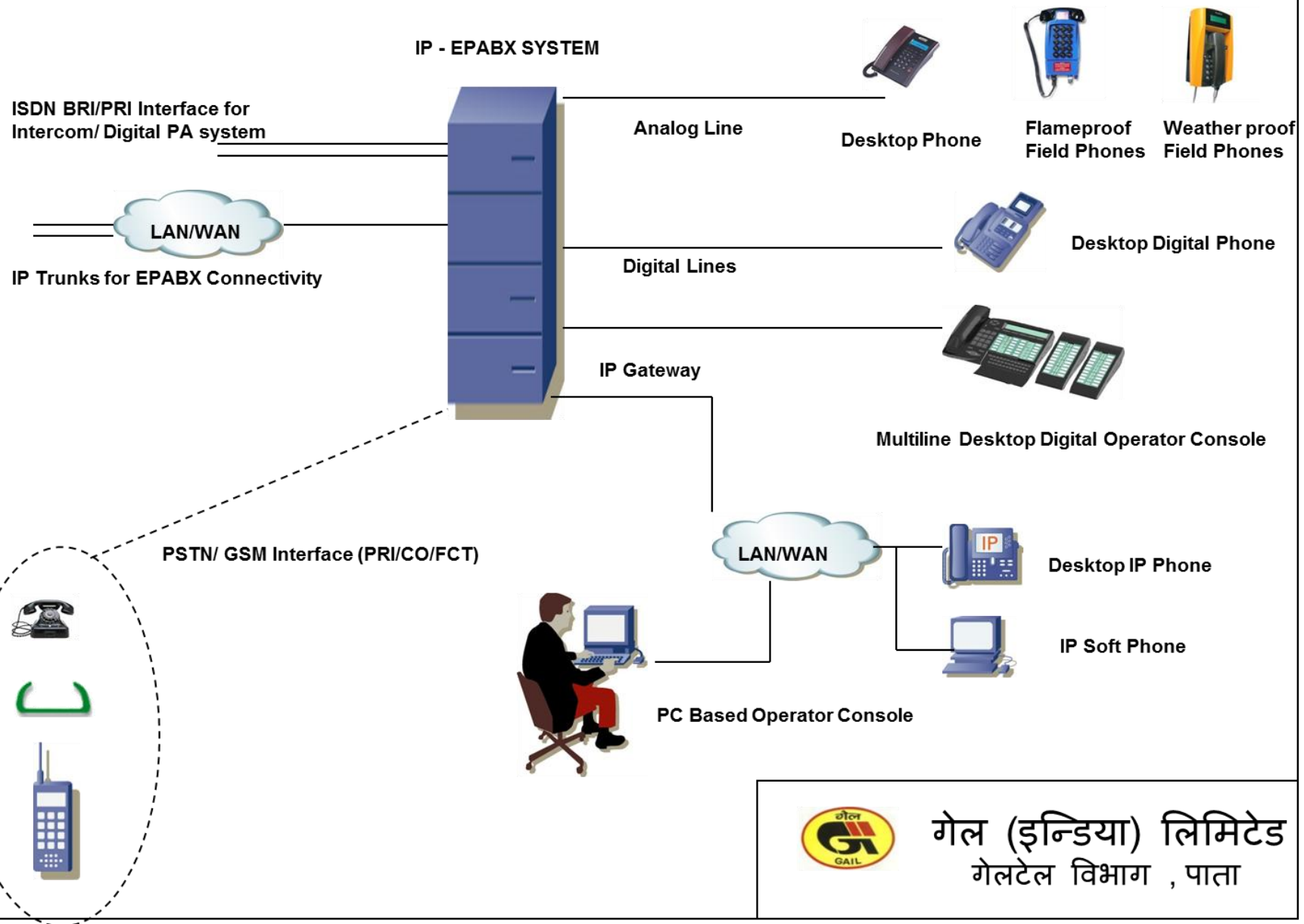
## **APPENDIX B**

### **DRAWINGS**

## PROPOSED IP BASED EPABX DEPLOYMENT PLAN

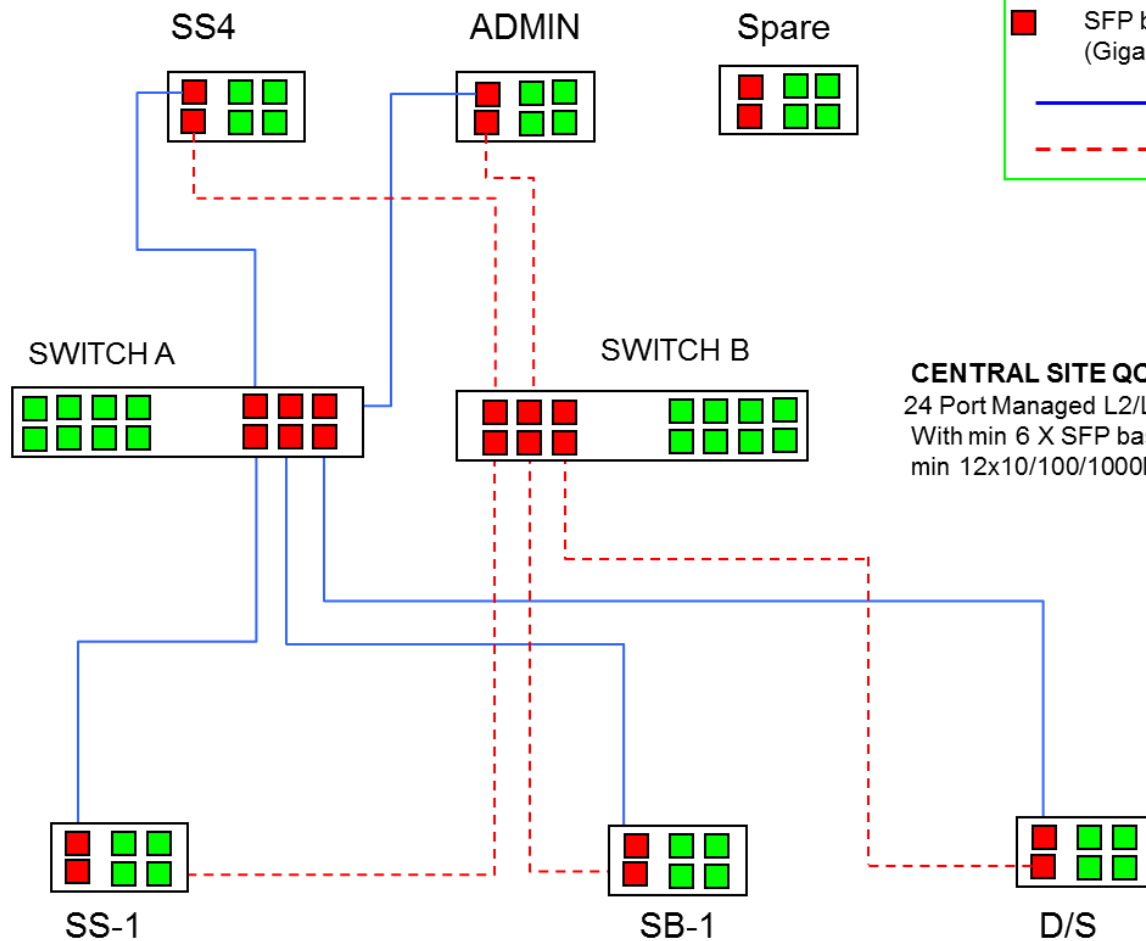


## EPABX INTERFACE, SUBSCRIBER DETAILS



### PROPOSED CAMPUS WIDE FIBER LAN

**Remote Sites:** Standalone Managed Ethernet Access Units  
With min 2 X SFP based Fiber ports (gigabit)  
min 8x10/100/1000Mbps User port (RJ-45)



- Legends:
- 10/100/1000 Mbps Ethernet Port (RJ-45)
  - SFP based network port (Gigabit fiber LAN, 1310/1550 nm, SM )
  - Primary path (OFC, SM)
  - - - Backup Path (OFC, SM)

**CENTRAL SITE QC-LAB**  
24 Port Managed L2/L3 Switch (1+1)  
With min 6 X SFP based Fiber ports (gigabit)  
min 12x10/100/1000Mbps User port (RJ-45)



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## PROPOSED OFC BACKBONE



Fiber Planning			
S/no	From	To	Dist (M)
1	SS4	Admin	800
2	SS4	QC-Lab	1800
3	QC-Lab	SS-1	1200
4	QC-Lab	D/S	2800
5	SS-1	SB-1	800
6	QC-Lab	LL-II	1800
			9200

QC Lab (Main)

SS1

SB1

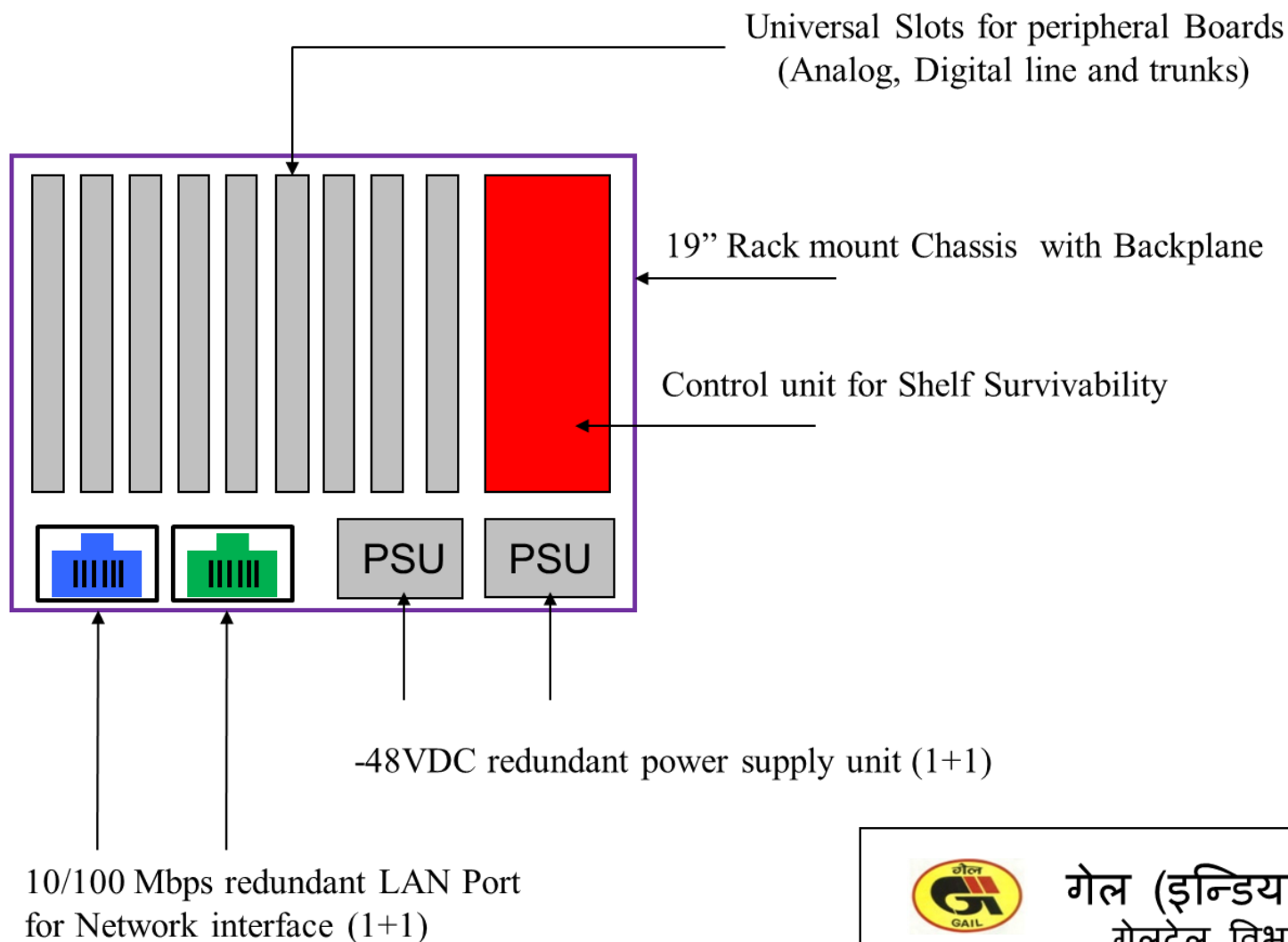
Backup Media

D/S C/Room



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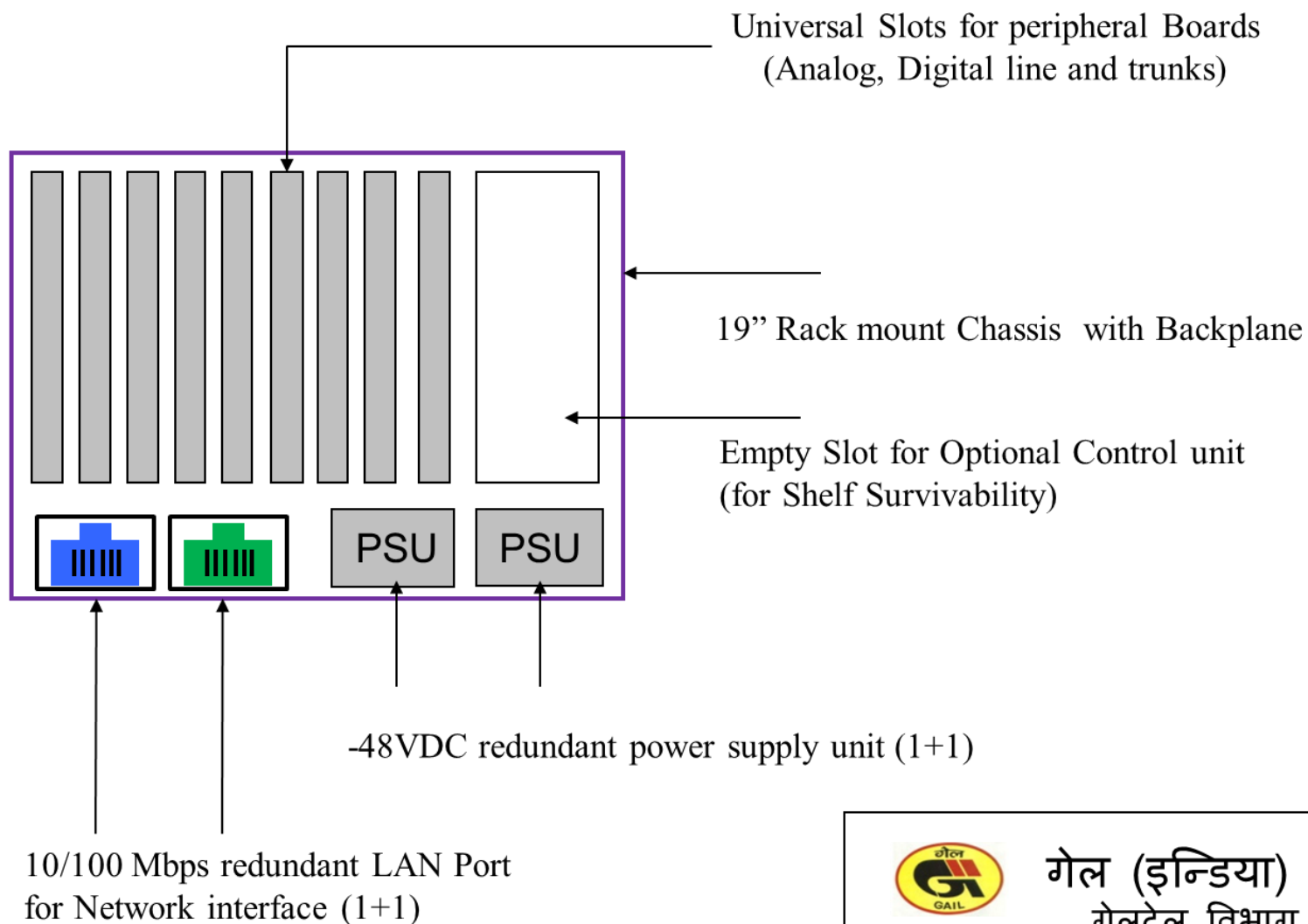
## SCHEMATIC DIAGRAM FOR MEDIA GATEWAY WITH SHELF SURVIVABILITY



गेल (इन्डिया) लिमिटेड  
गेलटेल विभाग , पाता

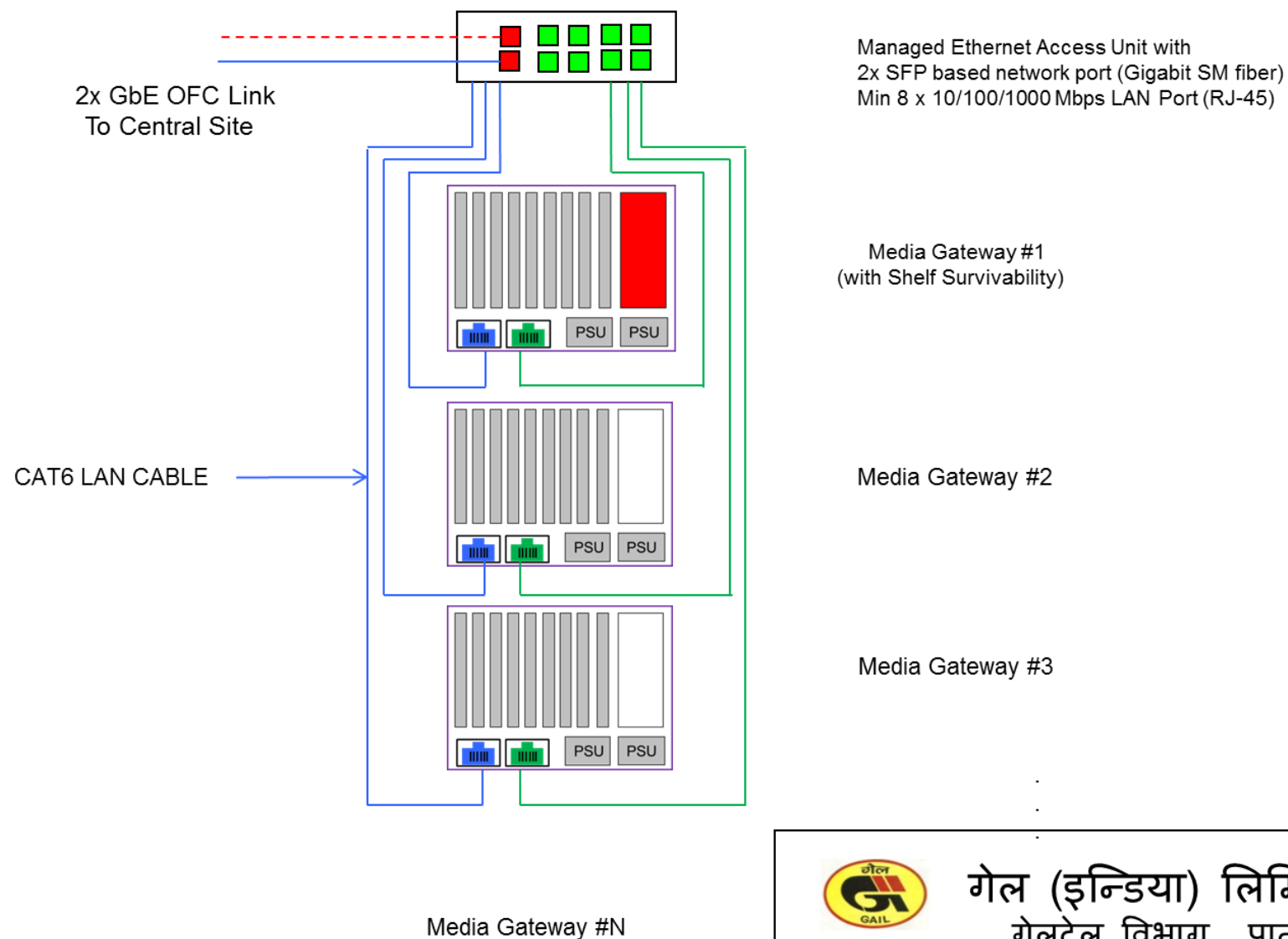


### SCHEMATIC DIAGRAM FOR MEDIA GATEWAY WITHOUT SHELF-SURVIVABILITY



गेल (इन्डिया) लिमिटेड  
गेलटेल विभाग , पाता

### CONNECTIVITY DIAGRAM OF A REMOTE EPABX



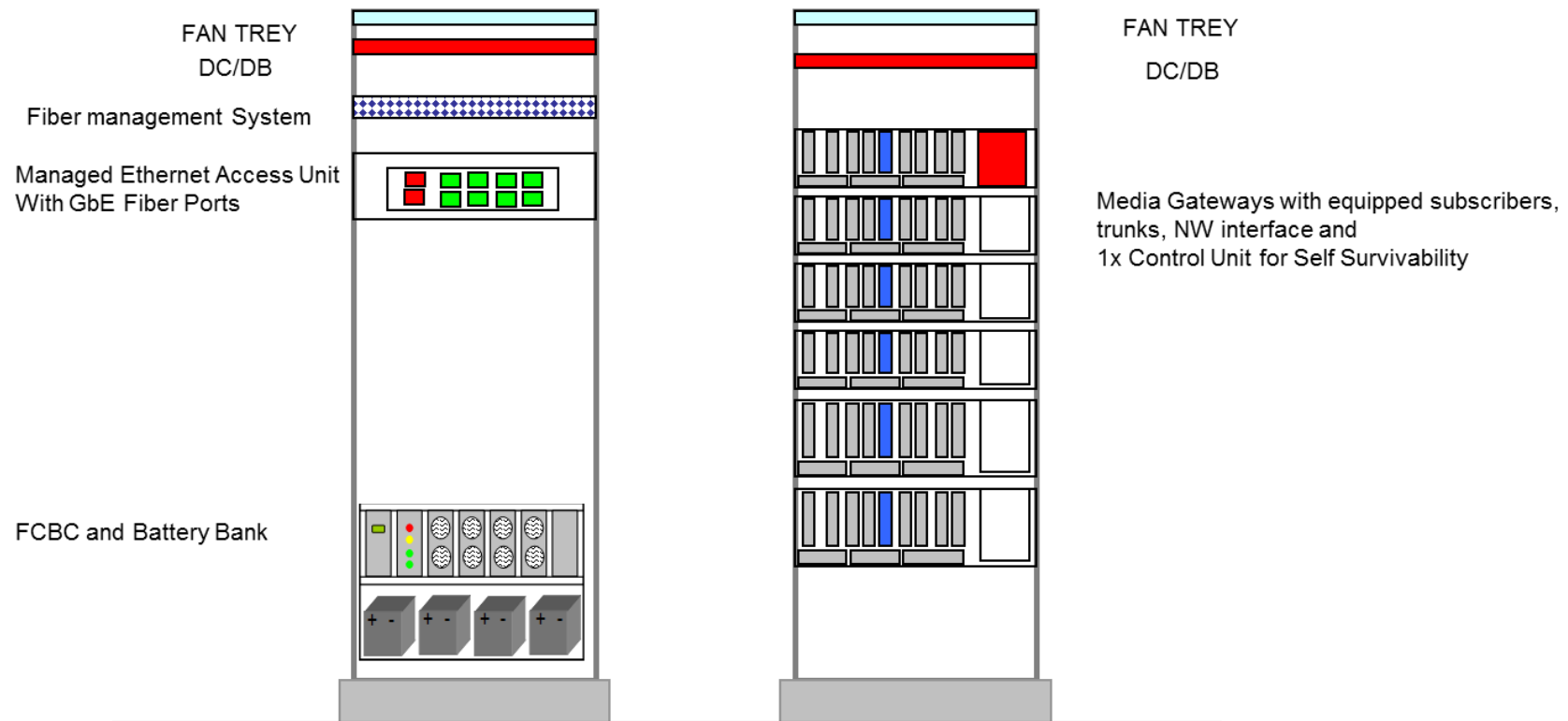
गेल (इन्डिया) लिमिटेड  
गेलटेल विभाग , पाता

### GENERAL EQUIPMENT LAYOUT FOR IP EPABX & ASSOCIATED HARDWARES FOR CENTRAL SITE



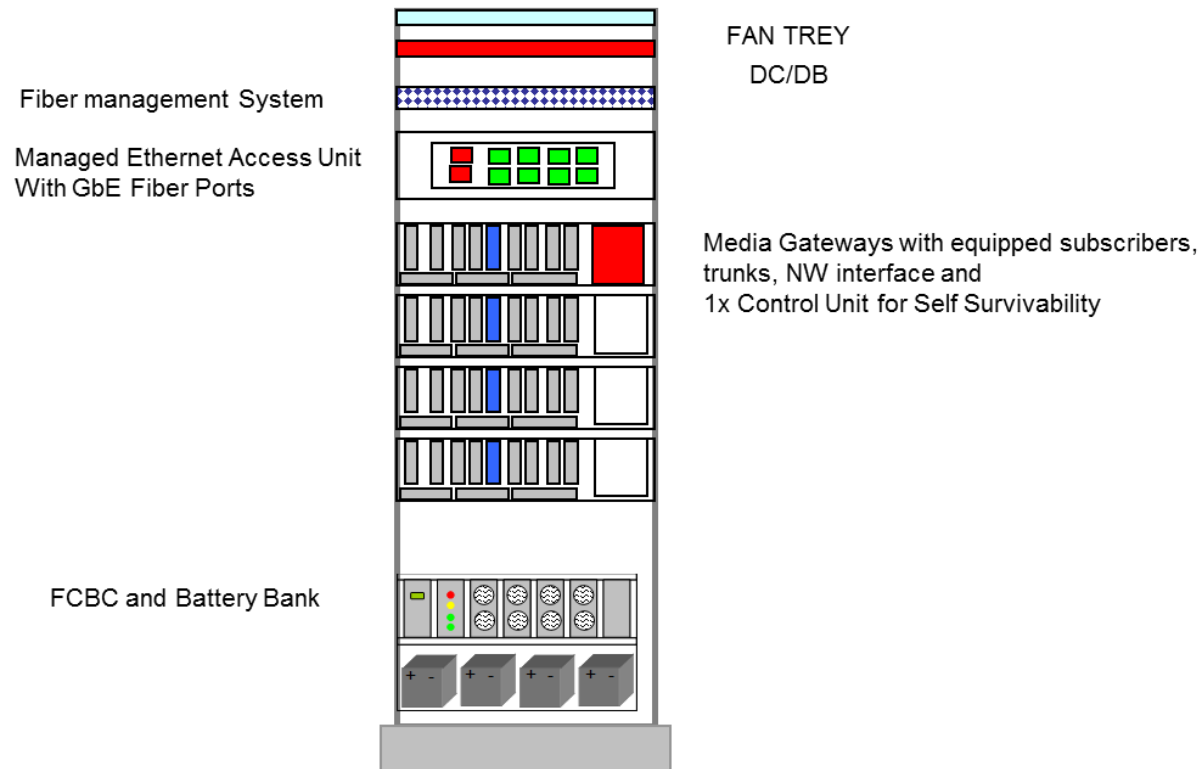
**गेल (इन्डिया) लिमिटेड**  
गेलटेल विभाग , पाता

**GENERAL EQUIPMENT LAYOUT FOR EPABX & ASSOCIATED HARDWARES  
FOR REMOTE SITES HAVING HIGHER SUBSCRIBERS AND NW INTERFACES**



**गेल (इन्डिया) लिमिटेड**  
गेलटेल विभाग , पाता

**GENERAL EQUIPMENT LAYOUT FOR EPABX & ASSOCIATED HARDWARES  
FOR REMOTE SITES HAVING LESS SUBSCRIBERS, NW INTERFACES**



**गेल (इन्डिया) लिमिटेड**  
**गेलटेल विभाग , पाता**

# PART VI

## GUIDELINES FOR CONDUCTING POC

POC (PROOF OF CONCEPT) DETAILS SHALL BE PREPARED IN LINE WITH OUR TECHNICAL REQUIREMENT AND SPECIFIC SOLUTIONS OFFERED BY THE VENDOR. FOLLOWING SHOULD BE INCLUDED AS MINIMUM:

DESIGN CONSIDERATIONS AND SELECTION OF PARTICULAR SOLUTION SHALL BE CLEARLY EXPLAINED DURING POC.

SYSTEM CAPABILITIES, FEATURES, FUNCTIONS ETC. SHALL BE CLEARLY EXPLAINED BY REFERRING SAME BOQ AND HW /SW VERSION AS OFFERED IN THE TENDER CONSISTING OF 1+1 COMMUNICATION SERVERS, MEDIA GATEWAYS, REMOTE SHELF INTERCONNECTED OVER LAN /WAN.

VENDOR HAS TO EXPLAIN SWITCHING CAPABILITY AND OTHER TECHNICAL FUNCTIONS COVERING THE FOLLOWING AS MINIMUM:

SYSTEM REDUNDANCY

100% IP CONFIGURATION WITH SERVER AND IP PHONES USING LAN/WAN NW

IP-TDM MIXED CONFIGURATION

NETWORKING CAPABILITIES

IP TRUNKING CAPABILITY

MANAGEMENT CAPABILITY

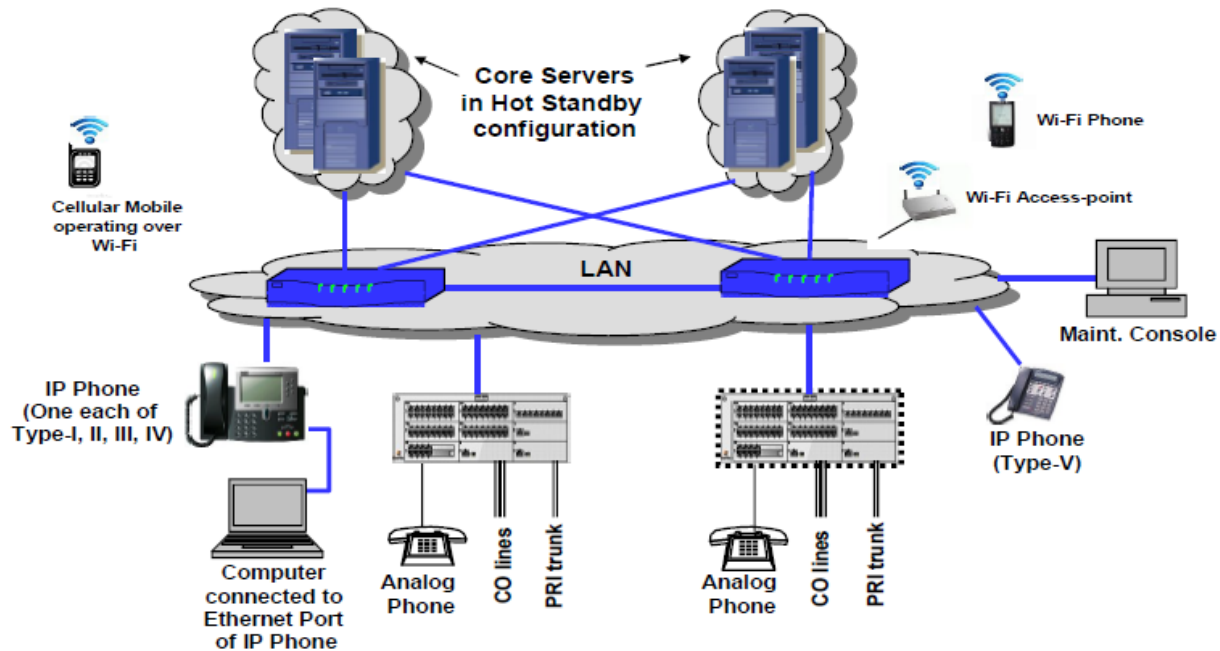
VOICE QUALITY USING DIFFERENT ENCODERS /COMPRESSION TECHNIQUES

DEMONSTRATION OF OFFERED DIGITAL PHONE AND IP PHONES

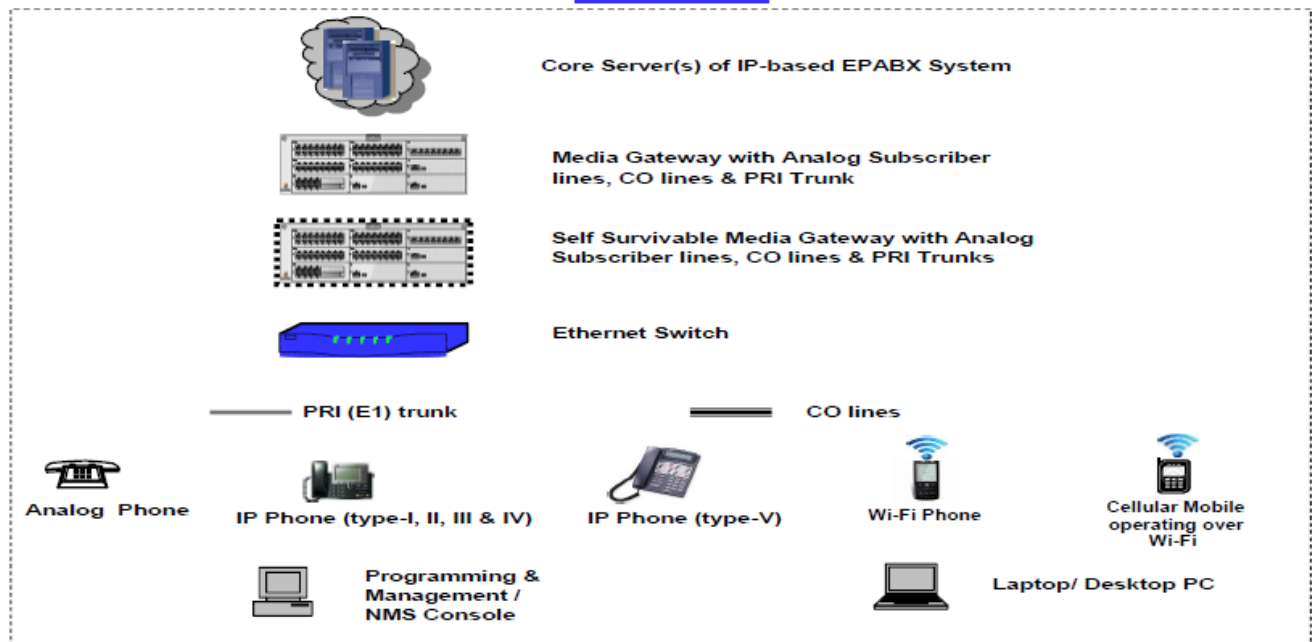
INDICATIVE SETUP FOR CONDUCTING POC IS ENCLOSED FOR REFERENCE.

Tender Document No : GAIL/PATA/C&P/20040734/PP [E-Tender No. 8000005311]  
Tender Subject : UPGRADATION OF EPABX SYSTEM AT GAIL (INDIA) LIMITED,  
PATA (UP) INDIA

### Indicative Setup for PoC



### Legends



DURING POC, VENDOR HAS TO CONVINCINGLY DEMONSTRATE THAT THE OFFERED SYSTEM SOLUTION IS CAPABLE OF DELIVERING ALL FEATURES, FUNCTIONS AND FACILITIES TO MEET TENDER SPECIFICATIONS.

## **PART VII**

### **DETAILS OF BUYBACK ITEMS**



## **PART VII-DETAILS OF BUYBACK ITEMS**

After commissioning and handing over of new system to GAIL, vendor has to buyback the following items as it as where basis which includes the following

Complete decommissioning of the equipment's

Handling loading and transportation of materials from GAIL's premises for further disposal and recycling

### **Details of Buyback Lot:**

Complete EPABX Systems installed /equipped hardware and software's	-01 Lot
Loose/faulty/spare parts of EPABX systems	-01 Lot
Digital telephone instruments and power supply/line drivers	-01 Lot
HDSL/S.HDSL Modems used for EPABX interconnections	-01 Lot
Complete voice mail system hardware and software's	-01 Lot
Complete Call billing system hardware and software's	-01 Lot
Complete -48VDC FCBC systems excluding batteries	-01 Lot

Further details of Buyback items are enclosed as per Annexure – E